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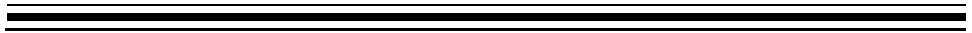
***Proposed Resource Management Plan and  
Final Environmental Impact Statement***

***Bighorn Basin Resource Management Plan Revision Project***

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***Glossary***

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## GLOSSARY

**Abandoned Mine:** An abandoned hardrock mine on or affecting public lands administered by the Bureau of Land Management (BLM), at which exploration, development, mining, reclamation, maintenance, and inspection of facilities and equipment, and other operations ceased as of January 1, 1981 (the effective date of BLM's Surface Management regulations codified at 43 Code of Federal Regulations (CFR) Subpart 3809) with no evidence demonstrating that the miner intends to resume mining. For many abandoned mines, no current claimant of record or viable potentially responsible party exists. Abandoned mines generally include a range of mining impacts, or features that may pose a threat to water quality, public safety, and/or the environment (BLM no date).

**Abandoned Mine Land (AML) Program:** BLM program that focuses on reclaiming hardrock abandoned mine lands on or affecting public lands administered by BLM. The primary goal of the program is to remediate and reduce actual or potential threats that pose physical safety risks and environmental degradation. BLM applies risk-based criteria and uses the watershed approach to establish project priorities. The program also works to return mine-impacted lands to productive use(s) (BLM No Date).

**Active Preference:** see *Active Use*.

**Active Use:** The current authorized livestock grazing use. Active use may constitute a portion, or all, or permitted use. Active use does not include a temporary non-use or suspended use of forage within all or a portion of an allotment.

**Additionality:** The conservation benefits of compensatory mitigation are demonstrably new and would not have resulted without the compensatory mitigation project. (BLM Manual Section 1794).

**Aeolian:** Pertaining to the wind, especially said of such deposits as loess and dune sand, of sedimentary structures such as wind-formed ripple marks, or of erosion and deposition accomplished by the wind; also the erosive action of the wind and deposits that are transported by the wind (American Geological Institute 2005).

**Alfisols:** Moderately leached soils with a subsurface zone of clay accumulation and a low base status.

**Allotment:** An area of land where one or more livestock operators graze their livestock. Allotments are BLM lands, but may also include other federally managed, state-owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

**Allotment Categorization:** Grazing allotments and rangeland areas used for livestock grazing are assigned to an allotment category during resource management planning. Allotment categorization is used to establish priorities for distributing available funds and personnel during plan implementation to achieve cost-effective improvement of rangeland resources. Categorization is also used to organize allotments into similar groups for purposes of developing multiple use prescriptions, analyzing site-specific and cumulative impacts, and determining trade-offs.

**Category "I" (Improvement):** The category for allotments where (1) present range condition is unsatisfactory and where range condition is expected to decline further; (2) present grazing management is not adequate; (3) the allotment has potential for medium to high vegetative production but production is low to moderate; (4) resource conflicts/controversy with livestock grazing are evident; (5) there is potential for positive economic return on public investment (BLM 1990). Additionally, allotments are categorized as Improvement where current livestock grazing management or level of use on public land is, or is expected to be, a significant causal factor in the

non-achievement of land health standards, or where a change in mandatory terms and conditions in the grazing authorization is or may be necessary. When identifying Category I allotments, review condition of critical habitat, conflicts with sage-grouse, and whether projects have been proposed specifically for implementing the Healthy Lands Initiative (BLM 2008a).

**Category "M" (Maintain):** The category for allotments where (1) the present range condition and management are satisfactory with good to excellent condition and will be maintained under present management, or fair condition and improving with improvement expected to continue under present management or opportunities for BLM management are limited because percentage of public land is low or acreage of public lands is small; (2) the allotment has a potential for moderate or high vegetative production is producing at or near this potential; (3) there are no significant land-use resource conflicts with livestock grazing; (4) land ownership status may or may not limit management opportunities; (5) opportunities for positive economic return from public investment may exist (BLM 1990). Additionally, allotments are categorized as Maintain where land health standards are met or where livestock grazing on public land is not a significant causal factor for not meeting the standards and current livestock management is in conformance with guidelines developed by the State Directors in consultation with Resource Advisory Councils. Allotments where an evaluation of land health standards has not been completed, but existing monitoring data indicates that resource conditions are satisfactory (BLM 2008a).

**Category "C" (Custodial):** The category for allotments where (1) present range condition is not in a downward trend; (2) the allotment has a low vegetative production potential and is producing near this level; (3) there may or may not be limited conflicts between livestock grazing and other resources; (4) present management is satisfactory or is the only logical management under existing conditions; and (5) opportunities for a positive economic return on public investments do not exist (BLM 1990). Additionally, allotments are categorized as Custodial where public lands produce less than 10 percent of the forage in the allotment or are less than 10 percent of the land area. An allotment should generally not be designated Category C if the public land in the allotment contains: (1) critical habitat for a threatened or endangered species, (2) wetlands negatively affected by livestock grazing (BLM 2008a).

**Allotment Management Plan:** A written program of livestock grazing management, including supportive measures if required, designed to attain specific management goals in a grazing allotment.

**Alluvial:** Composed of alluvium or deposited by a stream or running water.

**Alluvium:** A general term for all deposits resulting from the operations of modern rivers and creeks, including the sediments laid down in riverbeds, floodplains, and fans at the foot of mountain slopes.

**Analysis Area:** Any lands, regardless of jurisdiction, for which the BLM synthesizes, analyzes, and interprets data for information that relates to planning for BLM-administered lands.

**Animal Unit Month (AUM):** A standardized measurement of the amount of forage necessary for the sustenance of one cow unit or its equivalent for 1 month (approximately 800 pounds of forage).

**Animal-unit:** Considered to be one mature cow of approximately 1,000 pounds, either dry or with calf up to 6 months of age, or their equivalent, based on a standard amount of forage consumed.

**Anticline or Anticlinal:** A fold, generally convex upward, whose core contains the stratigraphically older rocks; also configuration of folded, stratified rocks in which the rocks dip or incline in two directions away from the crest, like the two halves of a pitched roof (BLM 2006; American Geological Institute 2005).

**Appropriate Management Level:** The number of adult horses or burros (expressed as a range with an upper and lower limit) to be managed within an HMA. The appropriate management level range is the number of adult wild horses and burros within which herd size will be allowed to fluctuate. The upper limit of the range is the maximum number of wild horses and burros that results in a thriving natural ecological balance and avoids a deterioration of the range; the lower limit of the range is the number that allows the population to grow to the appropriate management level upper limit over 4 to 5 years, without the need for gathers to remove excess wild horse and burros in the interim.

**Archaeology:** A method of the discovery, study and reconstruction of past human cultures from material remains such as artifacts and sites.

**Archaeological Site:** A place which holds evidence of past human activity.

**Archeological Landscape District:** A significant concentration, linkage, or continuity of cultural resource sites important in history or prehistory (BLM 2002b).

**Archaic:** Ancient, old, or surviving from an earlier people. Archaic can also mean relating to an earlier time.

**Area of Critical Environmental Concern (ACEC):** An area within the public lands designated for special management attention to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards. According to 43 CFR 1601.0-5a, "The identification of...[an] ACEC shall not, of itself, change or prevent change of the management or use of public lands."

**Areas Administratively Unavailable to Leasing:** BLM H-1601-1 – Land Use Planning, Appendix C.4 uses the term "areas closed to oil and gas leasing." Areas administratively unavailable or closed to oil and gas leasing are areas where it has been determined that other land uses or resource values cannot be adequately protected with even the most restrictive oil and gas leasing stipulations; appropriate protection can be ensured only by making the areas administratively unavailable to oil and gas leasing for the life of the plan. Lands currently under lease would remain leased for the life of the leases. After expiration of these leases, no lands would be available for lease.

**Aridisols:** Soils developed in arid environments with subsurface development that contains calcium carbonate ( $\text{CaCO}_3$ ).

**Arroyo:** A deep gully from the Spanish word riachuelo meaning stream, brook, small river or the dry bed of a waterway in the southwestern part of the United States.

**Arroyo Traps:** A dead end arroyo that was deep and broad enough to trap bison. Hunters drove a group of bison into one. When the stampeding bison reached the dead end, hunters armed with spears slaughtered the struggling animals.

**Artifact:** Any object made, modified, or used by humans usually, but not necessarily portable.

**Assessment Unit:** A mapable volume of rock within a total petroleum system that encompasses accumulations (discovered and undiscovered) that share similar geologic traits and socio-economic factors. Accumulations within an assessment unit should constitute a sufficiently homogeneous population such that the chosen methodology of resource assessment is applicable. A total petroleum system might equate to a single assessment unit. If necessary, a total petroleum system can be subdivided into two or more assessment units in order that each unit is sufficiently homogeneous to assess individually. An assessment unit may be identified as conventional, if it contains conventional accumulations, or as continuous, if it contains continuous accumulations.

**Associated Settings:** The geographic extent of the resources, qualities, and values or landscape elements within the surrounding environment that influence the trail experience and contribute to resource protection. Settings associated with a National Scenic or Historic Trail include scenic, historic, cultural, recreation, natural (including biological, geological, and scientific), and other landscape elements (see resources, qualities, and values).

**Atlatl:** A spear thrower that extended the range of a thrown spear. Using it caused the spear to go faster and farther than when it was thrown without an atlatl.

**Avoid:** A term used to address mitigation of some activity (i.e., resource use). Paraphrasing the Council on Environmental Quality Regulations (40 CFR 1508.20), avoidance means to circumvent, or bypass, an impact altogether by not taking a certain action, or parts of an action. Therefore, the term "avoid" does not necessarily prohibit a proposed activity, but it may require the relocation of an action, or the total redesign of an action to eliminate any potential impacts resulting from it.

**Avoidance Areas:** Areas where negative routing factors exist. ROWs either will not be granted in these areas, or—if granted—will be subject to stringent terms and conditions. In other words, ROWs would be *restricted* (but not necessarily prohibited) in these avoidance areas.

**Avoidance Mitigation:** Avoiding the impact altogether by not taking a certain action or parts of an action. (40 CFR 1508.20(a)) (e.g., may also include avoiding the impact by moving the proposed action to a different time or location).

### **Back Country Byway:**

**Back Country Byway Type I:** Byways that are either paved or have an all-weather surface. Normal passenger cars can easily negotiate the roads. They are usually narrow, slow-speed, secondary roads. None of the byways follow the main highways.

**Back Country Byway Type II:** Roads that require high-clearance trucks or four-wheel-drive vehicles, although passenger cars may be able to negotiate them under good conditions. These roads are not paved but often have an improved gravel surface. They often cross dry, rocky arroyos, have rough rutted sections, and have occasional steep grades and sharp curves.

**Back Country Byway Type III:** Byways requiring four-wheel-drive vehicles and others such as dirt bikes and all-terrain vehicles (ATVs). These roads are often unimproved dirt tracks. Expect steep grades, rocky and muddy sections, and possible route-finding. Do not attempt these byways in a two-wheel-drive vehicle, the consequences could be serious for operator/passenger and car.

**Back Country Byway Type IV:** Trails that are managed for snowmobile, dirt bike, mountain bike, or ATV use.

**Basal Area:** An area of land that is occupied by the cross-section of tree trunks and stems at their base.

**Baseline:** The pre-existing condition of a defined area and/or resource that can be quantified by an appropriate metric. During environmental reviews, the baseline is considered the affected environment that exists at the time of the review's initiation, and is used to compare predictions of the effects of the proposed action or a reasonable range of alternatives.

**Basement Rock:** A complex of undifferentiated rocks that underlies the oldest sedimentary rocks (SOP and WLA no date).

**Basin:** An extent of land where water from rain or snow melt drains downhill into a body of water, such as a river, lake, reservoir, estuary, wetland, sea or ocean. The basin includes both the streams and rivers that

convey the water as well as the land surfaces from which water drains into those channels, and is separated from adjacent basins by a drainage divide.

**Best Management Practices (BMP):** A suite of techniques that guide, or may be applied to, management actions to aid in achieving desired outcomes. Best management practices are often developed in conjunction with land use plans, but they are not considered a land use plan decision unless the land use plan specifies that they are mandatory. They may be updated or modified without a plan amendment if they are not mandatory.

**Benefits-Based Management:** Method for prescribing wildland recreation management from analysis in identifying and applying psychological motivators of participants in leisure activities. Benefits-based management is used in prescribing management, administration, monitoring, and marketing actions based on identified on-site desired experiences and lasting desired beneficial outcomes from activities influenced from the local recreational setting character conditions.

**Big Game Crucial Winter Range:** Winter habitat on which a wildlife species depends for survival. Because of severe weather conditions or other limiting factors, no alternative habitat would be available.

**Biodiversity:** The range of biological resources present in a particular region. It can be measured by the numbers and types of different ecosystems, species, or the genetic variation within species.

**Biologically Significant Unit:** In Wyoming, the Biologically Significant Unit for greater sage-grouse is Priority Habitat Management Areas (PHMAs), regardless of whether PHMAs cross multiple planning boundaries.

**Borrow Material:** A term used in conjunction with construction. The term refers to unprocessed material excavated from a borrow pit for use as fill at another location.

**Bow and Arrow:** A bow is a weapon for shooting arrows. It is made of a flexible material, often wood, that is bent by a string that is fastened to each end. An arrow is a straight slender stick that has a projectile point at one end and feathers on the other.

**C Category (Custodial):** see *Allotment Categorization*.

**Carbon Dioxide Flood:** A carbon dioxide flood (CO<sub>2</sub>) is an enhanced oil recovery technique that injects fluid into the reservoir. When carbon dioxide is injected, it mixes with the oil and the two compounds dissolve into one another. The injected CO<sub>2</sub> acts as a solvent to overcome forces that trap oil in tiny rock pores and helps sweep the immobile oil left behind after the effectiveness of water injection decreases, resulting in increased oil production (EnCana 2005).

**Carbon Isotope Excursion:** A marked deviation in the atmospheric C<sup>13</sup>/C<sup>12</sup> ratio due to a change in the global primary productivity level.

**Carrying Capacity:** The maximum stocking rate possible which is consistent with maintaining or improving vegetation or related resources. It may vary from year to year on the same area due to fluctuating forage production.

**Casual Collecting:** The collecting of a reasonable amount of common invertebrate and plant paleontological resources for non-commercial personal use, either by surface collection or the use of non-powered hand tools resulting in only negligible disturbance to the Earth's surface and other resources.

**Category (see *Allotment Categorization*):** The criteria used for the placement of the allotments into categories based on resource potential, resource use conflicts or controversy, opportunity of positive economic return on public investments, and the present management situation (BLM 1990).

**Cattleguard:** A device or structure, at points where roads or railroads cross a fence line, that is so designed that vehicular travel is uninterrupted, but crossing by all kinds of livestock is restricted.

**Causal:** Relating to a cause or causes; relating to a cause of effect.

**Cheatgrass:** Cheatgrass (*Bromus tectorum*) is an annual grass that forms tufts up to 2 feet tall. The leaves and sheaths are covered in short, soft hairs. The flowers occur as drooping, open, terminal clusters that can have a greenish, red, or purple hue. Flowering occurs in the early summer. These annual plants will germinate in fall or spring (fall is more common), and senescence usually occurs in summer. Cheatgrass invades rangelands, pastures, prairies, and other open areas. Cheatgrass has the potential to completely alter the ecosystems it invades. It can completely replace native vegetation and change fire regimes and is most problematic in areas of the western United States with lower precipitation levels.

**Class I Wells:** Injection wells that are:

- (1) Used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within ¼ mile of the well bore, an underground source of drinking water.
- (2) Other industrial and municipal disposal wells that inject fluid beneath the lowermost formation containing, within ¼ mile of the well bore, an underground source of drinking water.
- (3) Radioactive waste disposal wells that inject fluid below the lowermost formation containing an underground source of drinking water within ¼ mile of the well bore.

**Class II Wells:** Injection wells that are:

- (1) Brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, and may be commingled with wastewaters from gas plants, which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection.
- (2) For enhanced recovery of oil or natural gas.
- (3) For storage of hydrocarbons that are liquid at standard temperature and pressure.

**Closed:** Generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs.

**Clovis Point:** Spear point made by early Paleo-Indians; characterized by a short, shallow channel on one or both faces; larger than a Folsom point.

**Colluvium:** Rock fragments, sand, or soil material that accumulates at the base of slopes; slope wash (BLM 2008b).

**Commercial Forestland:** Capable of producing 20 cubic feet of wood fiber from commercial species per acre per year and has not been withdrawn from forest product harvest by law or statute.

**Commodity:** An economic good, such as a product of agriculture or mining.

**Communal Hunt:** A hunt in which all the group's able people joined. It may involve a number of groups and employ a technique that could kill many animals, such as bison (or buffalo) jump.

**Communication Site Management Plan:** A plan that provides for effective administration of a communications site. The site plan defines the principles and technical standards adopted in the site designation. The site plan provides direction for the day-to-day operations of the site in connection with



the lease. The site plan shall delineate the types of uses that are appropriate at this site and the technical and administrative requirements for management of the site. The site plan should reflect the complexity of the current situation and the anticipated demand for the site.

**Community:** (1) An assemblage of populations of plants and/or animals in a common spatial arrangement. (2) As assemblage of plants occurring together at any point in time, while denoting no particular ecological status. (3) A unit of vegetation.

**Community Phase:** A unique assemblage of plants and associated dynamic soil property levels that can occur within a state (Caudle et al. 2013).

**Community Recreation-tourism Market:** A community or communities dependent on public lands recreation or related tourism use, growth, or development. Major investments in facilities and visitor assistance are authorized within SRMAs where the BLM's strategy is to target demonstrated community recreation-tourism market demand. Here, recreation management actions are geared toward meeting primary recreation-tourism market demand for specific activity, experience, and benefit opportunities. These opportunities are produced through maintenance of prescribed natural resource or community setting character and by structuring and implementing management, marketing, monitoring, and administrative actions accordingly.

**Compensatory Mitigation:** Compensating for the (residual) impact by replacing or providing substitute resources or environments. (40 CFR 1508.20)

**Compensatory Mitigation Projects:** Specific, on-the-ground actions to improve and/or protect habitats (e.g., chemical vegetation treatments, land acquisitions, conservation easements).

**Compensatory Mitigation Sites:** The durable areas where compensatory mitigation projects will occur.

**Comprehensive Weed Management Plan:** A plan for controlling invasive plant species that incorporates integrated weed management techniques and accounts for pertinent considerations, such as management actions and allocations affecting weeds.

**Context and Intensity (NEPA):** Determining the significance of an impact under NEPA requires consideration of the context and intensity. Context is the significance of an action that must be analyzed in its current and proposed short- and long-term effects on the whole of a given resource (e.g., the affected region). Intensity refers to the severity of the effect, expressed qualitatively (relative comparable terms) or quantitatively (empirically measurable units).

**Continuous Grazing:** The grazing of a specific unit by livestock throughout a year or that part of the year during which grazing is feasible. The term is not necessarily synonymous with yearlong grazing, since seasonal grazing may be involved.

**Cool-Season Plant:** A plant which generally makes the major portion of its growth during the late fall, winter, and early spring. Cool-season species generally exhibit the C3 photosynthetic pathway.

**Nonconsumptive Use:** This is a use that does not reduce supply. For example, wildlife viewing does not reduce the supply of wildlife as opposed to big game hunting, which reduces the supply of big game.

**Contrast:** Opposition or unlikeness of different forms, lines, colors, or texture in a landscape.

**Controlled Surface Use (CSU):** Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. Identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute for the no surface occupancy (NSO) or timing limitations.

**Cordage:** Plant fibers twisted into cord, rope, or yarn.

**Core Areas:** An area of habitat of an appropriate size, configuration, and plant community type as to be capable of supplying all elements for the long-term security of a population of a given species (County of Riverside No Date).

**Cover:** (1) The plants or plant parts living or dead, on the surface of the ground. Vegetative cover or herbage cover is composed of living plants and litter cover of dead parts of plants. (2) The area of ground cover by plants of one or more species.

**Critical Growing Season (Growth Period):** A specified period of time in which plants need to develop sufficient carbohydrate reservoir and produce seed. This period of time varies by growth form. For example: Cool season bunchgrasses: May 1 – July 15; Warm season perennial grasses: June 1 – July 30; Riparian vegetation: July 1 through August 30.

**Cryic Soils:** Soil temperature regime that has mean annual soil temperatures between 0°C and 8°C (32°F and 47°F) (University of Wyoming 1999).

**Cultural Resource Inventory Levels:** A three-tiered process for discovering, recording, and evaluating cultural resources.

**Class I** - A review of existing literature and oral informant data combined with an analysis of a specific geographic region (e.g., an area of potential effect, drainage basin, resource area, etc.).

**Class II** - A sampling survey usually aimed at developing and testing a predictive model of cultural resource distribution.

**Class III** - An on-the-ground survey to discover, record, and evaluate cultural resources within a specific geographic area (e.g., usually an area of potential effect for a proposed undertaking).

**Cultural Resources Setting Consideration Zones (SCZ):** Zones of view shed management of “X” distance or the visual horizon, whichever is closer, from the external site boundaries, created to reduce visual and acoustic impacts to cultural resources for which the elements of setting and association are important. Where the vegetation, rock formations, open space, and bodies of water that made up the environmental setting during the periods of prehistoric or historic occupation or use are intact, management actions will be modified to maintain the long term integrity of those features. The current integrity of environmental features or factors related to the location, use, formation, or preservation of the site will be the important factors for determining appropriate management actions.

**Culture:** The customs, beliefs, and ways of life of a group of people.

**Cultivate:** To raise crops; to water, loosen the soil, and weed around growing plants.

**Cultivation:** The process of preparing the land and caring for growing crops.

**Dark Zone Cave:** An environmental zone found in deep and extensive caves. This cave zone is typified by complete darkness, almost constant temperature and humidity, and a unique array of cave-adapted organisms.

**dB (decibel):** A unit of measurement of the loudness or strength of a signal. One decibel is considered the smallest difference in sound level that the human ear can discern. Decibels are a relative measurement derived from two signal levels: a reference input level and an observed output level. A decibel is the logarithm of the ratio of the two levels. One Bel is when the output signal is 10 times that of the input and one decibel is 1/10 of a Bel.

**Declared Pest:** Any animal or insect which the board and the Wyoming weed and pest council have found, either by virtue of its direct effect, or as a carrier of disease or parasites, to be detrimental to the general welfare of persons residing within a district.

**Declared Weed:** Any plant which the board and the Wyoming weed and pest council have found, either by virtue of its direct effect, or as a carrier of disease or parasites, to be detrimental to the general welfare of persons residing within a district (State of Wyoming 1973).

**Deferment:** Delay of livestock grazing on an area for an adequate period of time to provide for plant reproduction, establishment of new plants, or restoration of vigor of existing plants. Rest is not defined as deferment in the Cody Field Office.

**Deferred Grazing:** The use of deferment in grazing management of a management unit, but not in a systematic rotation including other units. In the Cody Field Office, this is usually used to identify grazing use after the growing season, generally after August 15.

**Deferred-rotation:** Any grazing system which provides for a systematic rotation of the deferment among pastures.

**Dendrochronology:** The study of tree-ring dating. The science of dating events and weather patterns in former times by studying growth rings in trees. One can determine the age of a tree by counting its rings.

**Designated Noxious Weeds:** Weeds, seeds, or other plant parts that are considered detrimental, destructive, injurious, or poisonous, either by virtue of their direct effect or as carriers of diseases or parasites that exist within this state, and are on the designated list.

**Designated Pests:** Animals or insects which are on the designated list considered detrimental to the general welfare of the state (State of Wyoming 1973).

**Designated Roads and Trails:** A network of roads and trails specifically identified as the official travel and transportation network for a given area on which some type of motorized vehicle use is allowed either seasonally or year-long. Designated roads and trails are identified on maps, identified by signs in the field, and may be assigned road numbers for inventory and identification purposes. This may include routes on the official BLM transportation plan that are routinely maintained as well as routes that were user-created and which receive no regular maintenance. Vehicle travel is permitted only on roads and vehicle routes designated by the BLM. In areas where no formal travel management plan has been implemented, motorized use is limited to existing roads and trails on an interim basis.

**Desired Future Condition (DFC):** A portrayal of the land or resource conditions which are expected to result if goals and objectives are fully achieved (BLM and USFS 2001).

**Desired Future Condition (DFC) for Riparian and Wetlands (after 20-40 years of management):**

- Proper functioning conditions on all riparian and wetland habitats.
- Riparian and wetland vegetation supports proper functioning condition of biologic, hydrologic, and physical components of streams and wetlands.
- Systems are vertically stable (no downcutting).
- Floodplain connectivity.
- Herbaceous plant communities are composed of functional and structural plant groups that are dominated by deep-rooted native species that support streambank and shoreline stability, floodplain development, water quality, and nutrient cycling. Also includes woody species and cottonwoods within the site's potential.
- Management of invasive, noxious, and undesirable species.
- Provide 'Yellow, Red and Blue Ribbon' streams on those systems with fish habitat potential.

**Desired Plant Community (DPC):** Of the several plant communities that may occupy a site, the DPC is the community that has been identified through a management plan to best meet the plan's objectives for the site. At a minimum, it must protect the site.

**Destination Recreation-Tourism Market:** National or regional recreation-tourism visitors and other constituents who value public lands as recreation-tourism destinations. Major investments in facilities and visitor assistance are authorized within special recreation management areas (SRMAs) where the BLM's strategy is to target demonstrated destination recreation-tourism market demand. Here, recreation management actions are geared toward meeting primary recreation-tourism market demand for specific activity, experience, and benefit opportunities. These opportunities are produced through maintenance of prescribed natural resource setting character and by structuring and implementing management, marketing, monitoring, and administrative actions accordingly.

**Determination (Standards and Guidelines [S&G]):** Document recording the authorized officer's finding that existing grazing management practices or levels of grazing use on public lands grazing either are or are not significant factors in failing to achieve the standards and conform with the guidelines within a specified geographic area (preferably watershed or a group of contiguous watersheds) (BLM 2001).

**Diet:** What people and living organisms eat is their diet. A diet is a combination of foods and liquids that provide the necessary nutrients for the body.

**Digging Stick:** A pointed, wooden stick used to dig and pry edible roots from the ground.

**Disruptive Activity:** Those activities that disrupt or alter wildlife actions at key times, during important activities, or in important areas (feeding, breeding, nesting, herd movement, winter habitat). Disruptive activities are those which can result in reductions of energy reserves, health, reproductive success, or population. Some examples of disruptive activities include geophysical (seismic), well plugging or work-over operations that last 24 to 48 hours or longer, road reclamation, and wild horse grazing and management. Emergency activities, rangeland monitoring, recreational activities, livestock grazing and management, and other field activities are not considered disruptive activities (BLM 2008f).

**Domestication:** The process of taming or making usable for humans.

**Drive Line:** Alignments of stone, brush, logs or other materials designed to control the movement of animals during hunts.

**Driveway:** A strip of land specifically designated for the controlled movement of livestock.

**Drought:** (1) A prolonged chronic shortage of water, as compared to the norm, often associated with high temperatures and winds during spring, summer, and fall. (2) A period without precipitation during which the soil water content is reduced to such an extent that plants suffer from lack of water.

**Dung:** Animal manure. Solid waste material passed from the bowels of animals. Scientists study dung to learn what animals and humans ate in the past.

**Durability (protective and ecological):** The maintenance of the effectiveness of a mitigation project for the duration of the associated impacts, which includes resource, administrative/legal, and financial considerations (adopted and modified from BLM Manual Section 1794).

**Ecological Site:** A distinctive kind of land with specific soil and other physical characteristics that differs from other kinds of land in its ability to produce distinctive kinds and amounts of vegetation and in its ability to respond to management actions and natural disturbances.

**Ecological Site Description (ESD):** The official documentation of an ecological site describing the distinctive properties and characteristics, the abiotic and biotic relationships, and the ecological dynamics

of the site. In addition an ESD also provides interpretations about land uses and ecosystem services that a particular ecological site can support and management alternatives for achieving land management objectives.

**Ecological Status:** Ecological status is the present state of vegetation of a range site in relation to the potential natural community for that site. It is an expression of the relative degree to which the kinds, proportions and amounts of plants in a plant community resemble that of the potential natural plant community for the site. Four classes are used to express the degree to which the production or composition of the present plant community reflects that of the potential natural community (climax).

**Ecosystem:** A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.

**Eligible River:** An eligible river segment found through administrative study to meet the criteria for designation as a component of the National System, as specified in Section 4(a) of the Wild and Scenic Rivers Act.

**Endangered Species:** A plant or animal species whose prospects for survival and reproduction are in immediate jeopardy, as designated by the Secretary of the Interior, and as is further defined by the Endangered Species Act.

**Enhanced Recovery:** The use of artificial means to increase the amount of hydrocarbons that can be recovered from a reservoir. A reservoir depleted by normal extraction usually can be restored by secondary or tertiary methods of enhanced recovery.

**Enhancement:** A management action designed to improve visual quality.

**Entisols:** Soils with little or no development.

**Environment:** The conditions around an area that affect it. These include geography, soil, climate, plants, and animals.

**Ephemeral Stream:** A stream that flows only in direct response to precipitation, and whose channel is at all times above the water table. Confusion over the distinction between intermittent and ephemeral streams may be minimized by applying Meinzer's suggestion that the term "ephemeral" be arbitrarily restricted to streams that do not flow continuously for at least 30 days (Prichard et al. 1998). Ephemeral streams support riparian areas when streamside vegetation reflects the presence of permanent subsurface water.

**Epicontinental Seaway:** Shallow sea extending far into a continent.

**Epidemic:** An outbreak of a pest or disease in a high proportion of the individuals of a population in a geographic area. For example, outbreaks of bark beetles causing mortality in a large portion of pine trees in a forest.

**Evaluation (S&G):** An evaluation is conducted to arrive at 2 outcomes. Firstly, an evaluation conducts an analysis and interpretation of the findings resulting from the assessment, relative to land health standards, to evaluate the degree of achievement of land health standards. Secondly, an evaluation conducts an analysis and interpretation of information--be it observations or data from inventories and monitoring--on the causal factors for not achieving a land health standard. An evaluation of the causal factors provides the foundation for a determination (see *Determination*) (BLM 2001).

**Evidence:** Data which are used to prove a point, or which clearly indicate a situation.

**Excavation (Archaeological):** Carefully removing layers of dirt or sediment to find objects or features made by people from long ago.

**Exceedance:** An event in which measurements of ambient air quality are above the national ambient air quality standard (NAAQS) or Wyoming Department of Environmental Quality (DEQ) standard set for a particular pollutant. For example, an annual average nitrogen dioxide value of 110  $\mu\text{g}/\text{m}^3$  is an exceedance of both the NAAQS and Wyoming DEQ annual average standard for nitrogen dioxide of 100  $\mu\text{g}/\text{m}^3$ .

**Exclusion Areas:** Areas with sensitive resource values where rights-of-way (ROWs) and 302 permits, leases, and easements would not be authorized.

**Existing Roads and Trails (interim existing roads and trails):** Defined as routes existing prior to the date the OHV designation is announced in the *Federal Register*. These routes may have been constructed and maintained or may be two-track routes created and maintained by the passage of motor vehicles and which receive regular use. Roads and trails may be added, modified, or deleted by the Bureau from the inventory through authorizations as needs arise. Recent CTTM guidance (BLM Handbook 8342-1) directed the BLM to manage all BLM-administered public lands under “Designated Roads and Trails”. Existing roads and trails is to be used on an interim basis until a Travel Management Plan designates each individual route as open or closed for motorized use. The term “interim existing roads and trails”, or “existing roads and trails” are used to identify areas of low priority for travel management planning.

**Extensive Recreation Management Areas (ERMA):** See *Recreation Management Areas*.

**Extinct:** No longer existing or active; died out.

**Extinction:** Bring to an end, wiping out, or destruction.

**Fault:** A fracture in bedrock along which there has been vertical and/or horizontal movement caused by differential forces in the earth’s crust (BLM 2008f).

**Fire Management Plan:** Identifies appropriate strategies to achieve resource objectives. Identifies fire policy, objectives, and prescribed actions; may include maps, charts, tables, and statistical data.

**Fire Regime Condition Class:** A classification of the amount of departure from the natural fire regime. The departure results in changes to one or more of the following ecological components: vegetation characteristics (e.g., species composition, structural stages, stand age, canopy closure, and mosaic pattern), fuel composition, fire frequency, severity, and pattern, and other associated disturbance (e.g., insect and disease mortality, grazing, and drought). The three condition classes are listed below:

**Condition Class 1:**

- The historic disturbance regime is largely intact and functioning (e.g., has not missed a fire return interval)
- Potential intensity and severity of fire within historic range
- Effects of disease and insects within historic range
- Hydrologic functions within normal historic range
- Vegetation composition and structure resilient to disturbances
- Nonnative species currently not present or to a limited extent
- Low risk of loss for key ecosystem components.

**Condition Class 2:**

- Moderate alterations to historic disturbance regime evident (e.g., missed one or more fire return intervals)
- Effects of disease and insects pose an increased risk of loss of key community components

- Riparian areas and associated hydrologic function show measurable signs of adverse departure from historic conditions
- Vegetation composition and structure shifted toward conditions less resilient to disturbances
- Populations of nonnative species may have increased, increasing the risk of further increases following disturbance.

**Condition Class 3:**

- Historic disturbance regime significantly altered; historic disturbance processes and impacts may be precluded (e.g., missed several fire return intervals)
- Effects of disturbance (fire, insects, and disease) may cause significant or complete loss of key community components
- Hydrologic functions may be adversely altered; high potential for increased sedimentation and reduced streamflows
- Invasive, nonnative species may be common and in some cases the dominant species on the landscape; disturbance will likely increase both the dominance and geographic extent of these invasive species
- Highly altered vegetation composition and structure predisposes community to disturbance events outside the range of historic availability; disturbance may have effects not observed or measured before.

**Fire Return Interval:** The number of years between two successive fire events at a specific site or area.

**Flaring/Venting:** The controlled burning (flare) or release (vent) of natural gas that cannot be processed for sale or use because of technical or economic reasons.

**Floodplain Connectivity:** Maintenance of lateral, longitudinal, and vertical pathways for biological and hydrological processes in the floodplain. Examples of failures to maintain connectivity could include culverts or levees that restrict flow in the floodplain and that focus overbank flow into the channel.

**Floristic Province:** Areas of ecological and biological issues similarity (Stiver et al. 2006).

**Flushing Livestock:** Flushing livestock is the holding of livestock in an invasive, nonnative plant species (INPS) seed-free area where they are fed an INPS seed-free ration for 72 hours, thus flushing INPS seed from the animals' digestive systems.

**Fluvial:** Pertaining to rivers, streams, and floodplains (BLM 2006).

**Folsom Point:** A spear or atlatl dart point made by later Paleo-Indians. Characterized by a long, shallow channel on one or both faces; smaller than a Clovis point.

**Foothill:** A low hill near the base of a mountain or range of mountains.

**Forage:** Browse and herbage that are available and may provide food for grazing animals or be harvested for feeding. To search for or consume forage.

**Forage Production:** The weight of forage that is produced within a designated period of time on a given area (e.g., pounds per acre). The weight may be expressed as either green, air-dry, or oven-dry. The term may also be modified as to time of production such as annual, current years, or seasonal forage production.

**Foreground-Middle Ground Zone:** An area that can be seen from a travel route for a distance of 3 miles (foreground) to 5 miles (middle ground) where management activities might be viewed. A distance from 5 to 15 miles is called the *Background Zone* and the area beyond 15 miles is called the *Seldom-Seen Zone*.

**Foreland Basin:** A linear sedimentary basin in a foreland which subsides in response to flexural loading of the lithosphere by adjacent thrust sheets; also a depression that develops adjacent and parallel to a mountain belt (American Geological Institute 2005).

**Forestland:** Capable of producing 20 cubic feet of wood fiber from commercial species per acre per year.

**Fossil:** Fossils are any naturally occurring evidence of life older than 10,000 years.

**Frigid (soils):** The frigid soil temperature regime has mean annual soil temperatures below 8°C (47°F) but above 0°C (32°C). Frigid soils are described as cool (University of Wyoming 1999).

**Functional/Structural Groups:** A suite of species that are grouped together, on an ecological site basis, because of similar shoot (height or column) or root (fibrous vs. tap) structure, photosynthetic pathways, nitrogen fixing ability, or life cycle (University of Wyoming 1999).

**Fundamentals of Rangeland Health:** Overarching principles of rangeland health, listed at 43 CFR § 4180.1, which establish BLM policy of managing for healthy rangelands (60 Federal Register (FR) at 9954). State or regional standards and guidelines must provide for conformance with the Fundamentals of Rangeland Health (43 CFR § 4180.2(b)) (BLM 2001).

**Geographic Information System (GIS):** A computer system capable of storing, analyzing, and displaying data and describing places on the earth's surface.

**Geologic Province:** A spatial entity with common geologic or geomorphic attributes. A province may include a single dominant structural element such as a basin or a fold belt, or a number of contiguous related elements.

**Geologic Resources:** Resources associated with the scientific study of the Earth, including its composition, structure, physical properties, and history. Geologic resources commonly include the study of minerals (mineralogy) and rocks (petrology); the structure of the Earth (structural geology) and volcanic phenomena (volcanology); and landforms and the processes that produce them (geomorphology and glaciology).

**Glacier:** A large mass of ice that moves slowly down a slope or valley.

**Goal:** A broad statement of a desired outcome. Goals are usually not quantifiable and may not have established timeframes for achievement.

**Goal Interference:** Recreationist pursuing desired beneficial outcomes is not able to realize the positive aspects of a visit because of the behavior of someone else.

**Granitic:** General term for all light-colored, granite-like igneous rocks (BOR no date).

**Graze:** (1) The consumption of standing forage by livestock or wildlife. (2) To put livestock to feed on standing forage.

**Grazing:** To graze.

**Grazing License or Permit:** Official written permission to graze a specific number, kind, and class of livestock for a specified period on a defined allotment or management area.

**Grazing Management:** The manipulation of grazing and browsing animals to accomplish a desired result.

**Grazing Management Plan:** A program of action designed to secure the best practicable use of the forage resource with grazing or browsing animals.



**Grazing Period:** The length of time that animals are allowed to graze on a specific area.

**Grazing Permit:** A document that authorizes grazing use of the public lands under Section 3 of the Taylor Grazing Act. A grazing permit specifies terms and conditions under which permittees make grazing use during the term of the permit. Terms and conditions include the area authorized for grazing use, the number of livestock, period of use, and amount of use in AUMs and others.

**Grazing Preference:** (1) Selection of plants, or plant parts, over others by grazing animals. (2) Grazing preference means a superior or priority position against others for the purpose of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by the permittee or lessee. (Title 43 CFR 4100.0-5).

**Grazing Season:** (1) On public lands, and established period for which grazing permits are issued. May be established on private land in a grazing management plan. (2) The time interval when animals are allowed to utilize a certain area.

**Grazing System:** A specialization of grazing management which defines the periods of grazing and non-grazing.

**Great Basin:** is a large, arid region of the western United States, commonly defined as the contiguous watershed region, roughly between the Rocky Mountains and the Sierra Nevada, that has no natural outlet to the sea (WordIQ no date).

**Greenhouse Gas (GHG):** Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds. This property causes the greenhouse effect. Water vapor (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>), and ozone (O<sub>3</sub>) are the primary greenhouse gases in the Earth's atmosphere.

**Growing Season:** In temperate climates, that portion of the year when temperature and moisture permit plant growth.

**Guidelines:** Actions or management practices that may be used to achieve desired outcomes, sometimes expressed as best management practices. Guidelines may be identified during the land use planning process, but they are not considered a land use plan decision unless the plan specifies that they are mandatory.

**Guzzler:** A water development for wildlife.

**Habitat:** The natural abode of a plant or animal, including all biotic, climatic, and edaphic factors affecting life.

**Habitat Fragmentation:** The destruction or splitting up of continuous habitat by a physical barrier (e.g., fence) or a land use that results in surface disturbance (e.g., road construction, development, or agriculture).

**Habitat Guild:** A group of species that tend to occur in similar types of habitats.

**Habitat Management Area (HMA):** An area containing a specific habitat type(s) that is managed for the maintenance or recovery of a particular species.

**Habitat Management Plan (HMP):** A written and approved activity plan for a geographical area of public lands which identifies wildlife habitat management actions to be implemented in achieving specific objectives related to RMP planning document decisions (BLM 1987).

**HABS/HAER:** The Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) is an integral component of the federal government's commitment to historic preservation. The program documents important architectural, engineering and industrial sites throughout the United States and its territories. A complete set of HABS/HAER documentation, consisting of measured drawings, large-format photographs, and written history plays a key role in accomplishing the mission of creating an archive of American architecture and engineering and in better understanding what historic resources tell us about America's diverse ethnic and cultural heritage. To insure that such evidence is not lost to future generations, the HABS/HAER Collections are archived at the Library of Congress, where they are made available to the public.

**Hazard Fuels:** A fuel complex defined by kind, arrangement, volume, condition, and location that presents a threat of ignition and resistance to control.

**Hazardous Material:** A substance or combination of substances that, because of quantity, concentration, or physical, chemical, or infectious characteristics, may either: (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

**Heavy Equipment Use:** This phrase is used in fire management and is relative to limiting fire suppression tactics. In this context it refers to not using dozers, skidders, or graders in areas where important resource values are in need of protection. Fire engines and water tenders used during suppression activities would be allowed.

**Held by Production:** Leases that become productive and do not terminate until all wells on the lease have ceased production.

**High Potential Historic Site:** Historic sites related to the route or sites in close proximity thereto which provide opportunity to interpret the historic significance of the trail during the period of its major use. The criteria for consideration of sites as high potential historic sites include historic significance, presence of visible historic remnants, scenic quality, and relative freedom from intrusion. High potential historic sites are assumed to contain remnants, artifacts, and other properties eligible for the National Register of Historic Places, pending evaluation. Under the National Trails System Act, high potential historic sites located on federally owned land are referred to as Federal Protection Components.

**High Potential Route Segment:** Segments of a trail which would afford a high-quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route. National Historic Trail high potential route segments are assumed to contain remnants, artifacts, and other properties eligible for the National Register of Historic Places, pending evaluation. Under the National Trails System Act, high potential route segments located on federally owned land are referred to as Federal Protection Components.

**Historic:** Referring to the time after written records or after the Europeans first came and wrote about the people and events in America.

**Historic Trails:** Generally those routes utilized during the initial exploration and settlement of an area. These routes are known from maps and other documents and may also retain physical integrity on the ground (see also *National Historic Trails*).

**History:** The study of past events and times through use of written and recorded sources. In some cases, oral sources may also be available.

**House Pit:** A dwelling that had an excavated floor and a roof of poles covered with branches or hides. An earth sheltered home that was probably used on a seasonal basis.

**Hunter-gatherers:** People who depend on seasonally available wild animals and plants for food to survive.

**Hydrologic Units:** The United States is divided and sub-divided into successively smaller hydrologic units which are classified into four levels: regions, sub-regions, accounting units, and cataloging units. The hydrologic units are arranged within each other, from the smallest (cataloging units) to the largest (regions).

**I Category (Improve):** See *Allotment Categorization*.

**Impact Analysis for Planning (IMPLAN 2000) Model:** IMPLAN is a regional economic model that provides a mathematical accounting of the flow of money, goods, and services through a region's economy. The model provides estimates of how a specific economic activity translates into jobs and income for the region. It includes the "ripple effect" (also called the "multiplier effect") of changes in economic sectors that may not be directly impacted by management actions, but are linked to industries that are directly impacted. In IMPLAN, these ripple effects are termed indirect impacts (for changes in industries that sell inputs to the industries that are directly affected) and induced impacts (for changes in household spending as household income increases or decreases due to the changes in production).

**Important Cultural Resources:** All historic properties allocated to Conservation for Future, Scientific, and Traditional use categories. Additionally on a case by case basis some historic properties assigned to Experimental, and Public use categories may be determined to be included in this class of resource.

**Important Cultural Sites:** See *Important Cultural Resources*.

**Inceptisol:** A soil order in the United States Department of Agriculture (USDA) soil taxonomy characterized by young soils just starting to show horizon development.

**Increaser:** Plant species of the original vegetation that increase in relative amount, at least for a time, under continued disturbance to the norm.

**Indicator:** An indicator is a component of a system whose characteristics (for example, presence, absence, quantity, and distribution) can be observed, measured, or monitored based on sound scientific principles. An indicator can be evaluated at a site- or species-specific level. Monitoring of an indicator must be able to show change within timeframes acceptable to management and be capable of showing how the health of the ecosystem is changing in response to specific management actions. Selection of the appropriate indicators to be observed, measured, or monitored in a particular allotment is a critical aspect of early communication among the interests involved on-the-ground. The most useful indicators are those for which change or trend can be easily quantified and for which agreement as to the significance of the indicator is broad based.

**Indigenous:** Born, growing, or produced naturally (native) in an area, region or county.

**Infestation:** The inhabitation of a host by large numbers of pests, such as bark beetles on pine trees. Invasion by large numbers of parasites or pests.

**Infiltration:** The downward entry of water into the soil or other material.

**Integrated Weed Management:** The use of all appropriate weed control measures, including fire, as well as mechanical, chemical, biological, and cultural techniques, in an organized and coordinated manner on a site-specific basis.

**Interested Public:** Interested public means an individual, group, or organization that has: (1)(i) Submitted a written request to BLM to be provided an opportunity to be involved in the decision making process as

to a specific allotment, and (ii) Followed up that request by submitting written comment as to management of a specific allotment, or otherwise participating in the decision making process as to a specific allotment, if BLM has provided them an opportunity for comment or other participation; or (2) Submitted written comments to the authorized officer regarding the management of livestock grazing on a specific allotment (CFR 4100.0-5).

**Interim Management Policy (IMP):** The policy and guidelines under which the BLM manages lands under wilderness review (known as Wilderness Study Areas). This policy is referred to as the "interim" management policy because it applies to specific areas of the public lands for a limited amount of time, depending upon various stages and schedules of the review process (BLM Manual 8550).

**Intermittent Stream:** A stream that flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas. Confusion over the distinction between intermittent and ephemeral streams may be minimized by applying Meinzer's suggestion that the term "intermittent" be arbitrarily restricted to streams that flow continuously for periods of at least 30 days (Prichard et al. 1998).

**Invasive Species:** According to Executive Order 13112, an invasive species is an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. The executive summary of the National Invasive Species Management Plan further clarifies and defines an invasive species as a species that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

**Inventory:** Gathering of baseline information (including quantitative data, cultural knowledge, and qualitative observations) about condition of resources. Examples of inventory are Ecological Site Inventory, and Population Counts of Threatened or Endangered Species (BLM 2001).

**Karst Region:** Karst topography is a landscape shaped by the dissolution of a layer or layers of soluble bedrock, usually carbonate rock such as limestone or dolomite. Due to subterranean drainage, there may be very limited surface water, even to the absence of all rivers and lakes. Many karst regions display distinctive surface features, with sinkholes or dolines being the most common. However, distinctive karst surface features may be completely absent where the soluble rock is mantled, such as by glacial debris, or confined by a superimposed non-soluble rock strata. Some karst regions include thousands of caves, even though evidence of caves that are big enough for human exploration is not a required characteristic of karst.

**Key Area (grazing):** A relatively small portion of a rangeland selected because of its location, use, or grazing value as an area on which to monitor the effects of grazing use. It is assumed that key areas, if selected properly, will reflect the effects of current grazing management over all or a part of a pasture, allotment or other grazing unit.

**Key Area (greater sage-grouse):** Sagebrush habitat where there are known leks, brood-rearing or winter sage-grouse habitat (BLM 2004).

**Key Species:** Those species which must, because of their importance, be considered in a management program, or forage species whose use serves as an indicator of the degree of use of associated species.

**Kinds of Livestock (animal):** An animal species or species group such as sheep, cattle, goats, deer, horses, elk, antelope, etc.

**Lacustrine:** Pertaining to, produced by, or formed in a lake or lakes (BLM 2006).

**Land:** The total natural and cultural environment within which production takes place; a broader term than soil. In addition to soil, its attributes include other physical conditions, such as mineral deposits,

climate, and water supply; location in relation to centers of commerce, populations, and other land; the size of the individual tracts or holdings; and existing plant cover, works of improvement, and the like.

**Land Health:** Degree to which the integrity of the soil and the ecological processes of ecosystems are sustained (BLM 2001).

**Land Tenure:** To improve the manageability of BLM lands and improve their usefulness to the public, the BLM has numerous authorities for "repositioning" lands into a more consolidated pattern, disposing of lands, and entering into cooperative management agreements. These land-pattern improvements are completed primarily through the use of land exchanges, but also through land sales, jurisdictional transfers to other agencies, and through the use of cooperative management agreements and leases. These ownership or jurisdictional changes are referred as "Land Tenure Adjustments."

**Lands with Wilderness Characteristics:** Lands that have been inventoried and found to contain wilderness characteristics as defined in Section 2(c) of the Wilderness Act of 1964.

**Landscape Character:** The arrangement of a particular landscape as formed by the variety and intensity of the landscape features and the four basic elements of form, line, color, and texture. These factors give the area a distinctive quality which distinguishes it from its immediate surroundings.

**Leasable Minerals:** Those minerals or materials subject to lease by the federal government under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulphur, potassium, and sodium minerals; oil and gas, as well as geothermal resources.

**Lease:** (1) A legal document that conveys to an operator the right to drill for oil and gas; (2) the tract of land, on which a lease has been obtained, where producing wells and production equipment are located. Contractual instruments granting rights to use specific managed public lands, with certain conditions, for specific purposes such as livestock grazing, timber harvesting, and energy or mineral development.

**Lease Notice or Information Notice:** Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A Lease Notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions (Uniform Format for Oil and Gas Lease Stipulations, March 1989. Rocky Mountain Regional Coordinating Committee). An information notice has no legal consequences, except to give notice of existing requirements, and may be attached to a lease by the authorized officer at the time of lease issuance to convey certain operational, procedural or administrative requirements relative to lease management within the terms and conditions of the standard lease form. Information notices shall not be a basis for denial of lease operations (43 CFR 3101.1-3).

**Lease Stipulation:** A provision that modifies standard lease rights and is attached to and made a part of the lease (Uniform Format for Oil and Gas Lease Stipulations, March 1989. Rocky Mountain Regional Coordinating Committee). The authorized officer may require stipulations as conditions of lease issuance. "Stipulations shall become part of the lease and shall supersede inconsistent provisions of the standard lease form. Any party submitting a bid... shall be deemed to have agreed to stipulations applicable to the specific parcel..." (43 CFR 3101.1-3).

**Lek:** A traditional courtship display area attended by male sage-grouse in or adjacent to sagebrush dominated habitat. A lek is designated based on observations of two or more male sage-grouse engaged in courtship displays. Before adding the suspected lek to the database, it must be confirmed by an additional observation made during the appropriate time of day, during the strutting season. Sign of strutting activity (tracks, droppings, feathers) can also be used to confirm a suspected lek. Sub-dominant males may display on itinerant (temporary) strutting areas during population peaks. Such areas usually fail

to become established leks. Therefore, a site where small numbers of males (<5) are observed strutting should be confirmed active for two years before adding the site to the lek database.

**Lentic:** Standing water riparian/wetland areas such as lakes, ponds, seeps, bogs, and meadows (University of Arizona No Date).

**Limited Area:** Means an area restricted, at certain times, in certain areas, and/or to certain vehicle use. These restrictions may be of any type, but can generally be accommodated within the following type of categories: Number of vehicles; type of vehicles; time of season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions.

**Livestock:** Domestic animals.

**Livestock Carrying Capacity:** The maximum stocking rate possible without inducing damage to vegetation or related resources. It may vary from year to year on the same area due to fluctuating forage production.

**Livestock Management:** Application of technical principles and business methods to livestock production.

**Livestock Operation:** The management of a ranch or farm so that a significant portion of the income is derived from the production of livestock.

**Livestock Production:** (1) The weight, number of animals, etc., that a particular range, seeded pasture, or management system produces. (2) The business of producing livestock.

**Locatable Minerals:** Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of metallic minerals such as gold, silver, and other uncommon materials not subject to lease or sale.

**Lotic:** Running water riparian/wetland areas such as rivers, streams, and springs (University of Arizona No Date).

**M Category (Maintain):** See *Allotment Categorization*.

**Major Constraints (Oil and Gas):** Any stipulations or conditions of approval which may restrict the timing or placement of oil and gas developments and may result in an operator dropping the development proposal. Major constraints include NSOs, areas of overlapping TLS that last more than 6 months, areas closed to surface-disturbing activity, areas where surface-disturbing activity is prohibited, and VRM Class I areas. Leaseholders have the right to explore, develop, and produce mineral resources from any valid, existing lease, even if the area containing the lease were proposed to be closed to future leasing.

**Major Land Resource Areas (MLRA):** Broad geographic areas that are characterized by a particular pattern of soils, climate, water resources, vegetation, and land use.

**Management Plan:** A program of action designed to reach a given set of objectives.

**Management Zone (greater sage-grouse):** Biologically based management areas determined using sage-grouse populations and sub-populations identified within distinct floristic provinces. Management Zones reflect ecological and biological issues and similarities, not political boundaries. In addition, the vegetation communities found in the floristic provinces, as well as the management challenges within a given Management Zone, are similar and sage-grouse and their habitats are likely responding similarly to environmental factors and management actions (Stiver et al. 2006).

**Mass Wasting:** Down slope movement of soil or rock as a result of gravity.

**Measureable Targeted Outcomes:** A quantitative scale used to measure explicitly stated targeted experience and benefit outcomes as prescribed in each Recreation Management Area (SRMA, RMZ, Separate ERMA) through monitoring methods such as on site surveys, focus groups, or other means

appropriate and as funding allows to sample and collect data. Measurable targeted outcomes is ranged on a probability scale where 1=not at all, 2=somewhat, 3=neutral, 4=moderate, 5=total realization.

**Mechanized Use:** Use of public lands by human-powered vehicles (such as mountain bicycles).

**Medicine Wheel:** A stone structure or alignment which may include a ring, spokes, cairns, or other features. Many are rings with radial spokes and cairns in the center and along the ring. Others are simple radial spokes or combinations of both (Brumley 1988). These features are believed to have functions in ceremonial practices including astronomically based calendars. They are commonly found in association with other stone features (Brumley 1988).

**Megafauna:** Large animals especially in the last Ice Age or Pleistocene. These animals are now extinct and include mammoths, mastodons, American lions, American camels, and saber-toothed cats.

**Mesic:** Related to conditions of moderate moisture or water supply. Used to describe organisms occupying moist habitats.

**Metamorphic Rock:** Rocks that have undergone a fundamental change as the result of heat, pressure, and the chemical action of pore fluids and gases.

**Middle Rocky Mountain Foreland:** A sub-province within the Rocky Mountain System geologic province (see *Geologic Province*) that includes complex mountains with many intermontane foreland basins (see *Foreland Basin*) and plains.

**Mineral Materials (Salables):** Materials such as common varieties of sand, stone, gravel, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws, but can be acquired under the Mineral Materials Act of 1947, as amended.

**Mineral Withdrawal:** A formal order that withholds federal lands and minerals from entry under the Mining Law of 1872, as amended, and closes the area to mineral location (i.e., staking mining claims) and development.

**Minimization Mitigation:** Minimizing impacts by limiting the degree or magnitude of the action and its implementation (40 CFR 1508.20 [b]).

**Minimum Impact Suppression Techniques:** The application of strategy and tactics that effectively meet suppression and resource objectives with the least environmental, cultural and social impacts.

**Mitigation:**

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

**Mitigation Measures:** Methods or procedures designed to reduce or lessen the adverse impacts caused by management activities.

**Moderate (recreation outcomes):** See *Measurable Targeted Outcomes*.

**Moderate Constraints (Oil and Gas):** Any stipulations or conditions of approval which may restrict the timing or placement of oil and gas development, but would not otherwise restrict the overall

development. Moderate constraints include all timing restrictions (TLS), CSUs, areas where surface-disturbing activity is avoided, and VRM Class II areas.

**Mollisol:** Dark colored grassland type soils with high base status.

**Monitoring:** The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives.

**Multiple Use Reservoir:** A human-created lake or pond with a combination of balanced uses, including, but not limited to, recreation, livestock watering, watershed health, and wildlife and fish.

**National Historic Trails:** A protected area designation containing historic trails and surrounding areas authorized under the National Trails System Act of 1968. National Historic Trails may only be designated by an act of Congress.

**National Register of Historic Places:** The official list of the Nation's historic places worthy of preservation. Properties listed or eligible for listing are associated: with events, activities, or developments that were important in the past; with the lives of people who were important in the past; with significant architectural history, landscape history, or engineering achievements; or have already, or have the potential, to yield important information through investigation about our past. These may include districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association as appropriate.

**National Trail Management Corridor:** Allocation established through the land use planning process, pursuant to Section 202 of Federal Land Policy and Management Act and Section 7(a)(2) of the National Trails System Act ("rights-of-way") for a public land area of sufficient width within which to encompass National Trail resources, qualities, values, and associated settings and the primary use or uses that are present or to be restored.

**National Wild and Scenic Rivers System:** A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams:

- (1) Recreation – rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past;
- (2) Scenic – rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads; and
- (3) Wild – rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.

**Native American:** The people living in North and South America prior to European exploration. Many groups of people today are Native Americans and have ancestors who lived on these continents for thousands of years before Columbus came. They are also called American Indian, First American, Alaska Native and Native People.

**Native Species:** A species that is a part of the original fauna or flora of a given area in question.



**Native Species Status:** Native Species Status (NSS) refers to the population status of species native to the area in which their habitats occur. The NSSs are divided into the following categories:

**NSS1 Native Species Status 1**

Populations are greatly restricted or declining, extirpation appears possible; or ongoing significant loss of habitat.

**NSS2 Native Species Status 2**

Populations are declining, extirpation appears possible; habitat is restricted or vulnerable, but no recent or ongoing significant loss; species may be sensitive to human disturbance; or

Populations are declining or restricted in numbers and (or) distribution, extirpation is not imminent; ongoing significant loss of habitat.

**NSS3 Native Species Status 3**

Populations are greatly restricted or declining, extirpation appears possible; habitat is not restricted, vulnerable, but no loss; species is not sensitive to human disturbance; or

Populations are declining or restricted in numbers and (or) distribution, extirpation is not imminent; habitat is restricted or vulnerable, but no recent or ongoing significant loss; species may be sensitive to human disturbance; or

Species is widely distributed; population status or trends are unknown, but are suspected to be stable; ongoing significant loss of habitat.

**NSS4 Native Species Status 4**

Populations are greatly restricted or declining, extirpation appears possible; habitat is stable and not restricted; or

Populations are declining or restricted in numbers and (or) distribution, extirpation is not imminent; habitat is not restricted, vulnerable, but no loss; species is not sensitive to human disturbance; or

Species is widely distributed, population status or trends are unknown, but are suspected to be stable; habitat is restricted or vulnerable, but no recent or ongoing significant loss; species may be sensitive to human disturbance; or

Populations that are stable or increasing and not restricted in numbers and (or) distribution; ongoing significant loss of habitat.

**Natrargid:** Aridisols with an accumulation of clay and sodium.

**Natural Fire Regime:** The general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence of aboriginal burning (Agee 1993, Brown 1995).

**Nature and Purposes:** The term used to describe the character, characteristics, and congressional intent for a designated National Trail, including the resources, qualities, values, and associated settings of the areas through which such trails may pass; the primary use or uses of a National Trail; and activities promoting the preservation of, public access to, travel within, and enjoyment and appreciation of National Trails.

**Necessary Tasks (Clause):** Work requiring the use of motor vehicles. Examples include using motor vehicles to repair range improvements, manage livestock, perform geophysical exploration activities and other types of leasable mineral exploration activity (other than casual use), and performing mining claim functions resulting in less than 5 acres of surface disturbance as described in 43 CFR 3809.

**Net Conservation Gain:** The actual benefit or gain above baseline conditions.

**No Surface Occupancy (NSO):** Used to prohibit the physical presence of oil and gas operations and associated facilities on the surface of Public Lands in a specified area to protect sensitive surface resource values. The NSO provision is reserved for use in fluid mineral land use planning and allocation decisions and lease stipulations. Other terms, such as restricted area, avoidance area, exclusion area, etc., are used with non-fluid mineral functions.

**Nomad:** A person who belongs to a group of people who have no permanent home, but wander from place to place searching for water, food, or grazing land.

**Nonconsumptive Use:** A use that does not reduce supply. For example, wildlife viewing does not.

**Nonmarket Values:** These values are not revealed through market transactions that establish market prices. For example, clean air, open space, preservation of critical wildlife habitat, etc., are not traded in the market place and therefore there is no market price for them. Nonetheless, there is a value for these resources that can be measured based on how much people would be willing to pay for them.

**Objective:** A description of a desired condition for a resource. Objectives can be quantified and measured and, where possible, have established timeframes for achievement.

**Occupied Lek:** A lek that has been active during at least one strutting season within the last 10 years.

**Off-Highway Vehicle (OHV):** Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding (1) any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used in times of national defense emergencies.

**Off-Highway Vehicle (OHV) Management Designations:** All public lands are required to have off-highway vehicle area designations. Areas must be classified as open, limited, or closed to motorized travel activities. Travel by over-snow vehicles is subject to the same requirements and limitations as all other vehicles unless specifically addressed otherwise in activity plans.

**Closed:** Vehicle travel is prohibited in the area. Access by means other than motorized vehicle is usually permitted. This designation is used if closure to all vehicular use is necessary to protect resources, to ensure visitor safety, or to reduce conflicts. Use of vehicles in closed areas may be allowed for certain reasons; however, such use shall be made only with the approval of the authorized officer.

**Open:** Vehicle travel is permitted in the area (both on and off roads) if the vehicle is operated responsibly in a manner not causing, or unlikely to cause, significant undue damage to or disturbance of the soil, wildlife, wildlife habitats, improvements, cultural or vegetative resources, or other authorized uses of the public lands. These areas are used for intensive OHV use where there are no compelling resource needs, user conflicts, or public safety issues to warrant limiting cross-country travel.

**Limited:** (a) Vehicle travel is permitted only on roads and vehicle routes which were in existence prior to the date of publication in the Federal Register. Vehicle travel off of existing vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage. Random travel from existing vehicle routes is not allowed. Creation of new routes or extensions and (or) widening of existing routes are not allowed without prior written agency approval.

(b) Vehicle travel is permitted only on roads and vehicle routes designated by the BLM. Vehicle travel off of designated vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage. Random travel from designated vehicle routes is not allowed. In areas where final designation has not been completed, vehicle travel is limited to existing roads and vehicle routes as described above. Designations may include, but are not limited to, the following:

- (1) Vehicle route is open to vehicular travel.
- (2) Vehicle route is closed to vehicular travel.
- (3) Vehicle travel is limited by number or type of vehicle such as:
  - Vehicle route limited to four-wheel drive vehicles only.
  - Vehicle route limited to motorbikes only.
- (4) Vehicle route limited to ATVs only.
- (5) Area is closed to over-snow vehicles.
- (6) Vehicle travel is limited to licensed or permitted use.
- (7) Vehicle travel is limited to time or season of use.

Where specialized restrictions are necessary to meet resource management objectives, other limitations also may be developed. The BLM may place other limitations, as necessary, to protect other resources, particularly in areas that motorized OHV enthusiasts use intensely or where they participate in competitive or group events.

**Oil and Gas Management Area:** Intensively developed existing fields to be managed primarily for oil and gas exploration and development.

**Old-Growth Forest:** Ecosystem distinguished by old trees and related structural features. Old growth encompasses the later stages of stand development that typically differs from earlier stages in several ways, including tree size, accumulation of large dead woody material, number of canopy layers, species composition, and ecosystem function. Old-growth forest is typically distinguished by the following:

- Large-sized trees of specific species
- Wide variation in age classes and stocking levels
- Accumulations of large-sized dead standing and fallen trees
- Decadence in the form of broken or deformed tops and boles
- Multiple canopy layers
- Canopy interspaces and understory patchiness (BLM 2008c).

**Open:** Generally denotes that an area is available for a particular use or uses. Refer to specific program definitions found in law, regulations, or policy guidance for application to individual programs.

**Open Area (Vehicle Use):** All types of vehicle use is permitted at all times anywhere in the area. However, motor vehicles may not be operated in a manner causing or likely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat, improvements, cultural or vegetative resources or other authorized uses of the public lands (see 43 CFR 8340.0-5) (Manual 1626 Travel and Transportation Management). Accordingly, in “Open” areas, driving off-road to perform necessary tasks, for recreational activities, or any other purpose, is allowed. The experience in the western United States suggests that “Open” designations encourage route proliferation and unlimited cross-country driving and is causing degradation of the lands and resources. It is the policy of the BLM in Wyoming to limit the use of “Open” designations to areas suitable for unlimited off-road driving such as sand dune areas that are essentially devoid of vegetation.

**Operator:** Any person who has taken formal responsibility for the operations conducted on the leased lands.

**Outbreak:** The infestation of a relatively small and contained grouping of trees by bark beetles.

**Outstandingly Remarkable Values:** Values among those listed in Section 1(b) of the Wild and Scenic Rivers Act: “scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values.” Other values that may be considered include, but are not limited to, ecological, biological or botanical, paleontological, hydrological, traditional cultural uses, water quality, and scientific values. The Wild and Scenic Rivers Act does not further define outstandingly remarkable values. Agency resource professionals develop and interpret criteria in evaluating river values (unique, rare, or exemplary) based on professional judgment on a regional, physiographic, or geographic comparative basis.

**Over-the-snow Vehicle:** A motor vehicle that is designed for use over snow and that runs on a track or tracks and/or a ski or skis, while in use over snow.

**Overgrazing:** Continued heavy grazing that exceeds the recovery capacity of the forage plants and creates deterioration of the grazing lands (Valentine 1990).

**Paleo-Indian:** The name given to the oldest known cultural group in North America.

**Paleocene Eocene Thermal Maximum (PETM):** The Paleocene-Eocene Thermal Maximum (PETM) is one of the most intense and abrupt intervals of global warming in the geological record. It occurred around 56 million years ago, at the boundary between the Paleocene and Eocene epochs and lasted about 200,000 years. This warming has been linked to a similarly rapid increase in the concentration of greenhouse gases in Earth’s atmosphere, which acted to trap heat and drive up global temperatures by more than 5 degrees Celsius in just a few thousand years. The fossil record gives us the means of understanding how life was affected by the PETM, and so provides an excellent opportunity to study the relationships between evolution, extinction, migration and climate change. See <http://www.palaeontologyonline.com/articles/2011/the-paleocene-eocene-thermal-maximum/>.

**Paleoclimate Change:** Changing climatic conditions during past geologic ages.

**Paleoecological:** Relating to the study of ancient or prehistoric ecosystems (National Park Service no date).

**Paleontological Locality:** A geographic point or area where a fossil or associated fossils are found in a related geological context. A paleontological locality is confined to a discrete stratigraphic layer, structural feature, or physiographic area.

**Paleontological Resource Monitoring:** The systematic examination for and often collection of paleontological resources associated with surface disturbance.

**Paleontological Resources:** Paleontological resources are any fossilized remains, traces, or imprints of organisms, preserved in or on the Earth's crust, that are of paleontological interest and that provide information about the history of life on Earth.

**Paleontological Resources Protection Stipulations:**

**Collecting:** The project proponent/Operator is responsible for informing all persons associated with this project including employees, contractors and subcontractors under their direction that they shall be subject to prosecution for damaging, altering, excavating or removing any vertebrate fossils or other scientifically significant paleontological resources from the project area. Collection of vertebrate fossils (bones, teeth, turtle shells) or other scientifically significant paleontological resources is prohibited without a permit. Unlawful removal, damage, or vandalism of paleontological resources will be prosecuted by federal law enforcement personnel.

**Discovery:** If vertebrate or scientifically significant paleontological resources are discovered on BLM-administered land during operations, the Operator shall suspend operations that could disturb the materials, and immediately contact the BLM Cody or Worland Field Manager. The BLM will arrange for evaluation of the find by an appropriate BLM paleontologist, Paleontological Coordinator, or Paleontological Use Permittee within an agreed timeframe. The BLM will determine the need for any mitigation actions that may be necessary. Any mitigation would be developed in consultation with the Operator, who would be responsible for the cost of site evaluation and mitigation of project effects to the paleontological resources. Depending on site evaluation, operations within 100 feet of a paleontological discovery will not be resumed in written authorization to proceed is issued by the Field Office Manager.

**Avoidance:** All vertebrate or scientifically significant paleontological resources found as a result of the project/action will be avoided during operations. Avoidance in this case means "no action or disturbance within a distance of at least 100 feet of the outer edge of the paleontological locality".

**Paleontology:** The study of ancient life, particularly the fossil record (BLM 2008d).

**Parturition Areas:** Documented birthing areas commonly used by females. They include calving areas, fawning areas, and lambing grounds. These areas may be used as nurseries by some big game species.

**Pasture:** (1) A grazing area enclosed and separated from other areas by fencing or other barriers; the management unit for grazing land. (2) Forage plants used as food for grazing animals. (3) Any area devoted to the production of forage, native or introduced, and harvested by grazing. (4) A group of subunits grazed within a rotational grazing system.

**Pemmican:** A mixture of dried meat mixed with crushed berries and fat. It was used as food on hunting trips and other journeys because it kept well without spoiling.

**Perennial Stream:** A stream that flows continuously. Perennial streams generally are associated with a water table in the localities through which they flow (Prichard et al. 1998).

**Permit:** Contractual instruments granting rights to use specific managed public lands, with certain conditions, for specific purposes such as livestock grazing, timber harvesting, paleontology, and energy or mineral development.

**Permitted Use:** (1) The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease and is expressed in AUMs. (2) A paleontologist must have a valid paleontological resource use permit before collecting or disturbing fossil resources on BLM-administered lands. Permitted uses for paleontology include activities related to paleontological surveys, excavation and consulting.

**Permittee:** One who holds a permit to graze livestock on state, federal, or certain privately-owned lands.

**Period of Use:** The time of livestock grazing on a range area based on type of vegetation or stage of vegetative growth.

**Pest:** With the exception of vascular plants classified as invasive nonnative plant species, a pest can be any biological life form that poses a threat to human or ecological health and welfare. For the purposes of this planning effort, an “animal pest” is any vertebrate or invertebrate animal subject to control by Animal and Plant Health Inspection Service (APHIS). APHIS is currently BLM’s authorized agent for controlling “animal pests.” For this reason, “animal pests” will be considered a subset of Pest. An annoying or troublesome animal or thing; nuisance.

**Pestle:** A tool used to mash or grind substances.

**Petroglyph:** Pictures created on rock faces by removing a portion of the rock by pecking, abrading, incising, or scratching.

**Pictograph:** Picture created on a rock face by applying pigment or charcoal.

**Planning Area:** A geographic area for which land use and resource management plans are developed and maintained.

**Play Area (OHV):** An area where on- or off-route OHV use is nearly unrestricted. Often attracting many riders, such areas may be on dunes, in sand and gravel pits, and in other areas that present challenges to OHV users. Structured recreation management is applied to these areas so as to appropriately manage for health and safety, resource protection, and use and user conflicts. Play areas are designated on OHV “Open” Areas. See *Open Area* (BLM 2007a).

**Pleistocene:** The epoch of geologic time, about 1.6 million to 10,000 years ago, characterized by the appearance and disappearance of continental ice sheets.

**Potential Fossil Yield Classification (PFYC):** Occurrences of paleontological resources are closely tied to the geologic units that contain them. The probability for finding paleontological resources can be broadly predicted from the geologic units present at or near the surface. Using the PFYC system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils, with a higher class number indicating a higher potential. The classification uses a ranking of 1 through 5, with Class 5 assigned to units with a very high potential for paleontological resources. The classifications are described below.

**Class 1 – Very Low.** Igneous or metamorphic geologic units, or other units not likely to contain recognizable fossil remains. Management concern is very low or negligible. Assessment or mitigation is usually unnecessary except in very rare or isolated occurrence.

**Class 2 – Low.** Sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant invertebrate and plant fossils. Management concern for paleontological resources is generally low. Assessment or mitigation is usually unnecessary except in rare or isolated occurrences.

**Class 3 – Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance and predictable occurrence; or sedimentary units of unknown fossil potential. Management concern may extend across the entire range of management. PFYC 3 (Moderate) Units may require field surveys for determination of appropriate course of actions. Mitigation may be necessary before and/or during these actions. Avoidance or non-site monitoring may be necessary during project activities. Justification required for survey decisions

on PFYC 3 (Moderate) formations (i.e., whether a survey is required or not). PFYC 3 (Unknown) Units will require pre-disturbance field surveys prior to surface disturbing activities or land tenure adjustments. Mitigation may be necessary before and/or during these actions. Avoidance or non-site monitoring may be necessary during project activities.

**Class 4 – High.** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in occurrences and predictability. Surface disturbing activities may adversely affect paleontological resources in many cases, management concern for paleontological resources is high, depending on the proposed action. Pre-disturbance field surveys are usually necessary prior to surface disturbing activities or land tenure adjustments. Mitigation will often be necessary before and/or during these actions. Avoidance or non-site monitoring may often be necessary during project activities.

**Class 5 – Very High.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils. Paleontological resources are highly susceptible to adverse impacts from surface disturbing activities. Management concern for paleontological resources is very high. Pre-disturbance field surveys are usually necessary prior to surface disturbing activities or land tenure adjustments. Mitigation will often be necessary before and/or during these actions. Avoidance or non-site monitoring may often be necessary during project activities. Special management designations may be appropriate for protection or interpretation. These units are often the focus of illegal collecting activities.

**Potential Natural Community (PNC):** The biotic community that would become established if all successional sequences were completed without interference by humans under the present environmental conditions. Natural disturbances are inherent in development. PNCs can include naturalized nonnative species.

**Pottery:** Earthenware or clayware pots, dishes, or vases. These cups, bowls, and other dishes or objects were made from clay and hardened by heat.

**Prairie Dog “Complex”:** Defined as a cluster of two or more prairie dog towns within 3 kilometers of each other (Clark and Stromberg 1987; Luce 2003), and bounded by either natural or artificial barriers (Whicker and Detling 1998) which effectively isolate one cluster of colonies from interacting/interchanging with another. Prairie dogs may commonly move among colonies of a cluster, and thereby foster reproductive/genetic viability, but exhibit little emigration/immigration between clusters. A cluster may include some currently unoccupied, though physically suitable (i.e., vegetation, soils, topography, etc.), land immediately adjacent to occupied colonies that support other prairie dog-associated (ecosystem function), obligate or facultative species (e.g., swift fox, mountain plover, burrowing owl, etc.).

**Preference:** (1) Selection of plants, or plant parts, over others by grazing animals. (2) In the administration of public lands, “Grazing preference” or “preference” means a superior or priority position against others for the purpose of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by a permittee or lessee (43 CFR Part 4100).

**Prehistory/Prehistoric:** Information about past events prior to the recording of events in writing. The period of prehistory differs around the world depending upon when written records became common in a region.

**Prescribed Burning:** Controlled application of fire to wildland fuels in either their natural or modified state under specified environmental conditions that allow the fire to be confined to a predetermined area and at the same time to produce the fire intensity and rate of spread required to attain planned resource management objectives.

**Prescribed Fire:** The introduction of fire to an area under regulated conditions for specific management purposes.

**Priority Fish Species:** Priority fish species are species considered to be sport fish and native species.

**Priority Habitat Area (greater sage-grouse):** Habitat designated to maintain sage-grouse distribution and population sustainability. In this document, management for priority habitat is based on areas encompassed by either Priority Habitat Management Areas or Key Habitat Areas.

**Produced Water:** Groundwater removed to facilitate the extraction of minerals, such as coal, oil, or gas.

**Projectile Point:** A point or tip attached to a projectile to increase its ability to penetrate a target. These points are frequently made from stone, bone, ivory, antler, wood, or metal. The method, shape and material used to manufacture these points are frequently used to identify the groups making and using them.

**Proper Functioning Condition:** Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to:

- (1) dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality;
- (2) filter sediment, capture bedload, and aid floodplain development;
- (3) improve flood-water retention and ground-water recharge;
- (4) develop root masses that stabilize streambanks against cutting action;
- (5) develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and
- (6) support greater biodiversity.

**Proper Grazing:** Proper grazing is the practice of managing forage use by grazing animals at a sustainable level that maintains rangeland health. Proper grazing will maintain or increase plant cover, including residue, which acts to slow down or reduce runoff, increase water infiltration, and keep erosion and sedimentation at or above acceptable levels within the potential of ecological sites within a given geographic area (e.g., watershed, grazing allotment, etc.).

**Protohistoric:** Immediately before written history. The period when artifacts imported from other continents are found but for which no historic records exist.

**Public Land:** Land or interest in land owned by the United States and administered by the Secretary of the Interior through the BLM, except lands located on the Outer Continental Shelf, and land held for the benefit of Indians, Aleuts, and Eskimos.

**Range:** Any land supporting vegetation suitable for grazing including rangeland, grazable woodland and shrubland. Modifies resources, products, activities, practices and phenomena pertaining to rangeland.

**Range Condition:** (A) A generic term relating to present status of a unit of range in terms of specific values or potentials. Specific values or potentials must be stated. (B) Some agencies define range condition as follows: The present state of vegetation of a range site in relation to the climax (natural potential) plant community for that site. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the climax plant community for the site.



**Range Improvement Project:** A structural improvement requiring placement or construction to facilitate management or control distribution and movement of grazing or browsing animals. Such improvements may include, but are not limited to, fences, wells, troughs, reservoirs, water catchments, pipelines, and cattleguards. The project also may include a practice or treatment which improves rangeland condition and or resource production for multiple use. Nonstructural types of projects may include, but are not limited to, seeding and plant control through chemical, mechanical, and biological means or prescribed burning.

**Range Management:** A distinct discipline founded on ecological principles and dealing with the use of rangelands and range resources for a variety of purposes. These purposes include use as watersheds, wildlife habitat, grazing by livestock, recreation and aesthetics, as well as other associated uses.

**Range Site:** Synonymous with ecological site when referring to rangeland. An area of rangeland which has the potential to produce and sustain distinctive kinds and amounts of vegetation to result in a characteristic plant community under its particular combination of environmental factors, particularly climate, soils, and associated native biota. Some agencies use range site based on the climax concept, not potential natural community.

**Rangeland:** Land on which the native vegetation is predominantly grasses, grass-like plants, forbs, or shrubs suitable for grazing or browsing. This includes lands re-vegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing. Rangelands include natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows.

**Rangeland Health:** The degree to which the integrity of the soil and ecological processes of rangeland ecosystems are sustained.

**Raptor:** Bird of prey with sharp talons and a strongly curved beak, such as hawks, falcons, owls, vultures, and eagles.

**Reasonable Access:** For lands not involving Wilderness Study Areas (WSAs), reasonable access means access determined on a case by case basis using site specific NEPA analysis. Access to private land across public land in a WSA is addressed in the Wilderness Interim Management Policy for lands under Wilderness Review (IMP).

**Recreation and Public Purposes Act (R&PP):** The Recreation and Public Purposes Act (43 USC 869 et. seq.) authorizes the sale or lease of public lands for recreational or public purposes to state and local governments and to qualified nonprofit organizations. Examples of typical uses under the act are historic monument sites, campgrounds, schools, fire houses, law enforcement facilities, municipal facilities, landfills, hospitals, parks, and fairgrounds.

**Recreation Area Management Plan (RAMP):** An officially approved document for a specific area of public land that identifies the management actions to be implemented to achieve recreation related decisions made in a management framework of a resource management plan. The Recreation Area Management Plan is the link between the allocation of land for recreation uses in the multiple-use planning process and the actions necessary to implement such allocations (BLM 2005).

**Recreation Experiences:** Psychological outcomes realized either by recreation-tourism participants as a direct result of their on-site leisure engagements and recreation-tourism activity participation or by nonparticipating community residents as a result of their interaction with visitors and guests within their community or interaction with the BLM and other public and private recreation-tourism providers and their actions.

**Recreation Management Areas:** Recreation management areas are units within a planning area guiding recreation management on public lands having similar recreation related issues and concerns. There are two types of recreation management areas, extensive and special (ERMAs and SRMAs):

**Extensive Recreation Management Areas (ERMA):** The ERMAs are identified areas where recreation is planned for and actively managed on an interdisciplinary-basis in concert with other resources/resource programs. ERMAs offer recreation opportunities that facilitate visitors' freedom to pursue a variety of outdoor recreation activities and attain a variety of outcomes. They include all lands that are not designated as an SRMA or closed to public use. Recreation management actions within an ERMA are limited to only those of a custodial nature and address visitor health and safety, resource protection and use and user conflicts.

**Special Recreation Management Areas (SRMA):** SRMAs are designated administrative units where a commitment has been made to emphasize recreation by managing for specific recreation opportunities and settings on a sustained or enhanced, long-term basis. SRMAs are designated through the land use plan process. Plans establish SRMA management objectives and identify supporting management actions and allowable uses.

**Recreation Management Zones:** Subunits within a SRMA managed for distinctly different recreation products. Recreation products are composed of recreation opportunities, the natural resource and community settings within which they occur, and the administrative and service environment created by all affecting recreation-tourism providers, within which recreation participation occurs.

**Recreation Niche:** The place or position within the strategically targeted recreation-tourism market for each SRMA that is most suitable (i.e., capable of producing certain specific kinds of recreation opportunities) and appropriate (i.e., most responsive to identified visitor or resident customers), given available supply and current demand, for the production of specific recreation opportunities and the sustainable maintenance of accompanying natural resource or community setting character.

**Recreation Opportunities:** Favorable circumstances enabling visitors' engagement in a leisure activity to realize immediate psychological experiences and attain more lasting, value-added beneficial outcomes from the combination of recreation settings, activities, and experiences provided by the area.

**Recreation Opportunity Spectrum:** A means of classifying and managing recreational opportunities based on physical, social, and managerial settings. Each of the following six ROS classes is defined in terms of its combination of activity, setting, and experience: Primitive, Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Road Natural, Rural, and Urban.

**Recreation Setting Characteristics (RSC):** RSCs are derived from the Recreation Opportunity Spectrum. It is a continuum divided into a spectrum of classes from primitive to urban recreation settings. The continuum of classes is characterized by three components; physical, social and operational.

**Recreation Settings:** The collective distinguishing attributes of landscapes that influence and sometimes actually determine what kinds of recreation opportunities are produced.

**Recreation-Tourism Market:** Recreation and tourism visitors and local residents who affect local governments and private sector businesses and the communities or other places where these customers originate (local, regional, national, or international). Based on analysis of supply and demand, land use plans strategically identify primary recreation-tourism markets for each special recreation management area—destination, community, or undeveloped.

**Reference State:** A reference state is recognized in each state-and-transition model that describes the ecological potential and natural or historical range of variability of the ecological site (Caudle et al. 2013).

**Renewable Energy:** Energy generated from renewable resources such as sunlight, wind, and biomass.

**Required Design Features (RDFs):** Required Design Features (RDFs) are required for certain activities in all priority greater sage-grouse habitat. RDFs establish the minimum specifications for certain activities to help mitigate adverse impacts. However, the applicability and overall effectiveness of each RDF cannot be fully assessed until the project level when the project location and design are known. Because of site-specific circumstances, some RDFs may not apply to some projects (e.g., a resource is not present on a given site) and/or may require slight variations (e.g., a larger or smaller protective area). All variations in RDFs would require that at least one of the following be demonstrated in the NEPA analysis associated with the project/activity:

- A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g., due to site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable;
- An alternative RDF is determined to provide equal or better protection for greater sage-grouse or its habitat;
- A specific RDF will provide no additional protection to greater sage-grouse or its habitat.

**Reserve Common Allotment** – A reserve common allotment is an area which is designated in the land use plan as available for livestock grazing but reserved as an area available for use as an alternative to grazing in another allotment in order to facilitate rangeland restoration treatments and recovery from natural disturbances such as drought or wildfire. The reserve common allotment would provide needed flexibility that would help the agency apply temporary rest from grazing where vegetation treatments and/or management would be most effective.

**Residual Impacts:** Impacts from an authorized land use that remain after applying avoidance and minimization mitigation; also referred to as unavoidable impacts.

**Resource Management Plan:** A land use plan as prescribed by the Federal Land Policy and Management Act which establishes, for a given area of land, land-use allocations, coordination guidelines for multiple-use, objectives and actions to be achieved.

**Resource Uses:** Activities that utilize resources, such as minerals development, livestock grazing, forestry, OHV use, and recreation.

**Resources, Qualities, and Values:** The significant scenic, historic, cultural, recreation, natural (including biological, geological, and scientific), and other landscape areas through which such trails may pass as identified in the National Trails System Act (see associated settings).

**Rest:** Leaving an area ungrazed, thereby foregoing grazing of one forage crop. Normally rest implies absence of grazing for a full growing season or during a critical portion of plant development; i.e., seed production. In the Cody Field Office, rest is defined as foregoing grazing for a full grazing year defined as starting on March 1 and ending on February 28.

**Rest-Rotation:** A grazing-management scheme in which rest periods, usually for a full growing season, for individual grazing units are incorporated into a grazing rotation.

**Restricted Disposal:** Parcels identified for restricted disposal may be disposed of under the Recreation and Public Purposes Act, by exchange, may limit the disposal to a particular type of entity capable of preserving

the resource values, or may include the use of covenants in the deed or land sale patent to ensure the resource values are protected.

**Right-of-Way (ROW) Corridor:** Public land where rights-of-way are concentrated and where the placement of future rights-of-way would be favored over lands that are currently unaffected by these disturbances. The designation of right-of-way corridors would be used to facilitate the regional development of major rights-of-way, by linking right-of-way concentration areas between planning areas. Major rights-of-ways are defined as ROW authorizations for pipelines 24-inches in diameter or greater or high voltage transmission lines greater than 115 kilovolts.

**Rights-of-Way (ROW):** A ROW grant is an authorization to use a specific piece of public land for a specific project, such as roads, pipelines, transmission lines, and communication sites. The grant authorizes rights and privileges for a specific use of the land for a specific period of time.

**Riparian:** A form of wetland transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels are typical riparian areas (See BLM Manual 1737). Included are ephemeral streams that have vegetation dependent upon free water in the soil. All other ephemeral streams are excluded.

**Riparian/Wetland Functionality Classification:**

**Functional-At-Risk:** Riparian/wetland areas that are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

**Proper Functioning Condition (PFC):** A riparian or wetland area is considered to be in proper functioning condition when adequate vegetation, landform, or large woody debris is present to do the following:

- Dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality
- Filter sediment, capture bedload, and aid floodplain development
- Improve floodwater retention and groundwater recharge
- Develop root masses that stabilize streambanks against cutting action
- Develop diverse ponding and channel characteristics to provide the habitats and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses
- Support greater biodiversity.

**Non-functional:** Riparian or wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, and so on, as listed above. The absence of certain physical attributes, such as a floodplain where one should be, are indicators of nonfunctioning conditions.

**Unknown:** Riparian or wetland areas that the BLM lacks sufficient information on to make any form of determination.

**Roasting Pit:** A pit dug into the ground that was used for cooking. The pit contained fire-cracked rocks, charcoal, ash, and sometimes the remains of whatever was cooked.

**Rotation (forest):** The period of years between when a forest stand (i.e., primarily even-aged) is established (i.e., regeneration) and when it receives its final harvest. This time period is an administrative decision based on economics, site condition, growth rates, and other factors (BLM 2007b).

**Rotation Grazing:** A grazing scheme where animals are moved from one grazing unit in the same group of grazing units to another without regard to specific graze: rest periods or levels of plant defoliation.

**Salable Minerals:** Common variety of minerals on public lands, such as sand and gravel, used mainly for construction. Salable minerals are disposed of by sales to the public or free-use permits to government agencies or nonprofit organizations.

**Scenic Area:** An area whose landscape character exhibits a high degree of variety and harmony among the basic elements which results in a pleasant landscape to view.

**Scenic Quality:** The relative worth of a landscape from a visual perception point of view. Scenic quality is rated as Class A (high), Class B (medium), or Class C (low).

**Season-long Use:** Grazing throughout the growing period, with little or no effort to control the amount of distribution of livestock use in area/pasture/allotments. Generally defined in the Cody Field Office as starting on April 1 and ending September 30.

**Seasonal Grazing:** Grazing use throughout a specific season.

**Seasonal Ranges:** The Wyoming Game and Fish Department has identified various ranges for big game species. These ranges are defined as follows:

**Summer or Spring-Summer-Fall:** A population or portion of a population of animals uses the documented habitats within this range annually from the end of previous winter to the onset of persistent winter conditions.

**Severe Winter Relief:** A documented survival range, which may or may not be considered a crucial range area as defined above. It is used to a great extent, but only in extremely severe winters. It may lack habitat characteristics that would make it attractive or capable of supporting major portions of the population during normal years, but is used by and allows at least a significant portion of the population to survive the occasional extremely severe winter.

**Winter:** A population or portion of a population of animals annually uses the documented suitable habitat sites within this range in substantial numbers during the winter period only.

**Winter/Year-long:** A population or a portion of a population of animals makes general use of the documented suitable habitat sites within this range on a year-round basis. During the winter months there is a significant influx of additional animals into the area from other seasonal ranges.

**Year-long:** A population or substantial portion of a population of animals makes general use of the suitable documented habitat sites within the range on a year-round basis. On occasion, animals may leave the area under severe conditions.

**Section 106 of the National Historic Preservation Act:** “The head of any Federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking in any state and the head of any federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking” (16 U.S.C. 47 df).

**Sedimentary Rock:** Rock that has formed through the deposition and lithification of sediment, especially sediment transported by water (rivers, lakes, and oceans), ice (glaciers), and wind; or rocks that are chemically precipitated (BLM 2008c).

**Sensitive Sites or Resources:** Sensitive sites or resources refer to significant cultural resources that are or may be eligible for nomination to the National Register of Historic Places. This category also refers to cultural resources that require management under the American Indian Religious Freedom Act, the Native American Grave Repatriation Act or Executive Orders independent of the National Register of Historic Places.

**Sensitive Species:** Species designated as sensitive by the BLM State Director include species that are under status review, have small or declining populations, live in unique habitats, or require special management. BLM Manual 6840 provides policy and guidance for special status species management. The BLM Wyoming Sensitive Species Policy and List are provided in a memorandum updated annually. Primary goals of the BLM Wyoming policy include maintaining vulnerable species and habitat components in functional BLM ecosystems and preventing a need for species listing under the Endangered Species Act.

**Seral Stage:** One of a series of plant communities that follows another in time on a specific ecological site.

**Setting:** Setting is the physical environment of a historic property and how the property evokes a sense of feeling and association with past events. Accordingly, setting refers to the character of the place in which the property played its historic role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space. These features and their relationships should be considered not only within the exact boundaries of the property, but also between the property and its surroundings.

**Shaman:** A medicine man or religious leader; a person who calls upon the spirits to cure the sick and to control events (weather or hunting).

**Significant Factor (S&G):** Principal causal factor in the failure to achieve the land health standard(s) and conform with the guidelines. A significant factor would typically be a use that, if modified, would enable an area to achieve or make significant progress toward achieving the land health standard(s). To be a significant factor, a use may be one of several causal factors contributing to less-than-healthy conditions; it need not be the sole causal factor inhibiting progress towards the standards.

**Significant Paleontological Resource:** Any paleontological resource that is considered to be of scientific interest, including most vertebrate fossil remains and traces, and certain rare or unusual invertebrate and plant fossils.

**Site:** A location, place. Is a term used by archaeologists for places that prehistoric and historic people lived in or used. Sites are places where humans left things behind.

**Slope:** A slant or incline of the land surface, measured in degrees from the horizontal, or in the percent (defined as the number of feet or meters change in elevation per 100 of the same units of horizontal distance); may be further characterized by direction (exposure).

**Soil Moisture Regimes:** The categorization of the presence or absence of water in soils.

**Aridic:** Soils dry more than half of the time when they are warm enough for plant growth. These soils are too dry for annual cropping and many require irrigation for crop production.

**Udic:** The udic moisture regime implies that, in 6 or more out of 10 years, the soil moisture control section is not dry in any part for as long as 90 cumulative days per year.

**Ustic:** The ustic moisture regime implies that moisture is limited but is present at a time when conditions are suitable for plant growth.

**Xeric:** The xeric moisture regime implies that, in 6 or more out of 10 years, the soil moisture control section is dry in all parts for 45 or more consecutive days in the four months following the winter solstice.

**Soil Write-up Area (SWA):** The smallest geographical unit delineation to be used as a base for collecting vegetation data and resource information. It is the smallest mapped soil – vegetation unit. For management purposes, SWA boundaries can be set on administrative boundaries such as allotments, pasture, wildlife habitat areas or watersheds.

**Special Recreation Management Areas (SRMA):** A public lands unit identified in land use plans to direct recreation funding and personnel to fulfill commitments made to provide specific, structured recreation opportunities (i.e., activity, experience, and benefit opportunities). Both land use plan decisions and subsequent implementing actions for recreation in each SRMA are geared to a strategically identified primary recreation-tourism market – destination, community, or undeveloped, as well as a corresponding and distinguishing recreation management strategy. Recreation setting conditions are prescribed as part of the land-use allocation decision. Subsequent implementing actions, as identified in the activity planning framework, are proactive and address management, marketing and visitor information, and monitoring and administration.

**Special Status Species:** Special status species are species proposed for listing, officially listed as threatened or endangered, or are candidates for listing as threatened or endangered under the provisions of the endangered species act; those listed by a state in a category such as threatened or endangered implying potential endangerment or extinction; and those designated by the State Director as sensitive (BLM 6840 Manual 2001). Special Status Species may include wildlife (including fish and invertebrate) or plant species.

**Species:** A taxon or rank species; in the hierarchy or biological classification, the category below genus.

**Species Diversity:** The number, different kinds of, and relative abundances of species present in a given area.

**Split-Estate:** Surface land and mineral estate of a given area under different ownerships. Frequently, the surface will be privately owned and the minerals federally owned.

**Spring:** Flowing water originating from an underground source.

**SRMA:** See *Recreation Management Areas*.

**Stakeholder:** Federal, state, or local governments and agencies, or other entities where a Memorandum of Understanding, Cooperative Agreement, Interagency Agreement, or other such agreement has been executed with the BLM, or an applicant for a BLM authorization or permit.

**Stand Basal Area:** The sum of the cross-sectional area of all living trees in a stand, measured at "breast height" or 4.5 feet high on the uphill side of the trees.

**Stand Productivity:** Measured by comparison to site index. If the site index is 75 feet at 100 years, but the stand averages 65 feet at 100 years, then a factor such as high basal area or mistletoe might be decreasing stand productivity.

**Stand Vigor:** General term that refers to the current growth and health of the stand. Live crown ratio is a measure of stand vigor. For example, most stands with an average live crown ratio of 50% or more have vigorous growth. Most stands with an average of less than 20% live crown ratio have poor vigor.

**Standard:** A description of the physical and biological conditions or degree of function required for healthy, sustainable lands (e.g., land health standards).

**State-Listed Species:** Species proposed for listing or listed by a state in a category implying, but not limited to, potential endangerment or extinction. Listing is either by legislation or regulation.

**Stipulations:** Requirements that are part of the terms of a mineral lease. Some stipulations are standard on all Federal leases. Other stipulations may be applied to the lease at the discretion of the surface management agency to protect valuable surface resources and uses.

**Stock Trail:** A trail constructed across a natural barrier to permit movement of livestock to otherwise inaccessible areas.

**Stocking Rate:** The number of specific kinds and classes of animals grazing a unit of land for a specified time period. May be expressed as AUMs or animal unit days per acre, hectare, or section, or the reciprocal (area of land/AUM or day).

**Stratigraphy:** The science of studying layers of materials, as in rock layers in the Earth or deposits in archaeological sites. Cultural remains and dirt become buried over time and, usually, the layer on the bottom is the oldest, the layer on the top is the youngest. Dirt of different layers is often colored differently.

**Suitable River:** An eligible river segment found through administrative study to meet the criteria for designation as a component of the National System, as specified in Section 4(a) of the Wild and Scenic Rivers Act.

**Surface Water Classes and Uses:** The following water classes are a hierarchical categorization of waters according to existing and designated uses. Except for Class 1 waters, each classification is protected for its specified uses plus all the uses contained in each lower classification. Class 1 designations are based on value determinations rather than use support and are protected for all uses in existence at the time of or after designation. There are four major classes of surface water in Wyoming with various subcategories within each class (see “Wyoming Surface Water Classification List” for current listing).

**Class 1 – Outstanding Waters:** Class 1 waters are those surface waters in which no further water quality degradation by point source discharges other than from dams will be allowed. Nonpoint sources of pollution shall be controlled through implementation of appropriate best management practices. Pursuant to Section 7 of these regulations, the water quality and physical and biological integrity that existed on the water at the time of designation will be maintained and protected. In designating Class 1 waters, the Environmental Quality Council shall consider water quality, aesthetic, scenic, recreational, ecological, agricultural, botanical, zoological, municipal, industrial, historical, geological, cultural, archeological, fish and wildlife, the presence of substantial quantities of developable water, and other values of present and future benefit to the people.

**Class 2 – Fisheries and Drinking Water:** Class 2 waters are waters, other than those designated as Class 1 that are known to support fish or drinking water supplies or where those uses are attainable. Class 2 waters may be perennial, intermittent, or ephemeral and are protected for the uses indicated in each subcategory listed below. Five subcategories of Class 2 waters exist.

**Class 3 – Aquatic Life Other than Fish:** Class 3 waters are waters other than those designated as Class 1 that are intermittent, ephemeral, or isolated waters, and because of natural habitat conditions, do not support nor have the potential to support fish populations or spawning or certain perennial waters that lack the natural water quality to support fish (e.g., geothermal areas). Class 3 waters provide support for invertebrates, amphibians, or other flora and fauna that



inhabit waters of the state at some stage of their life-cycles. Uses designated on Class 3 waters include aquatic life other than fish, recreation, wildlife, industry, agriculture, and scenic value. Generally, waters suitable for this classification have wetland characteristics; and such characteristics will be a primary indicator used in identifying Class 3 waters. There are four subcategories of Class 3 waters.

**Class 4 – Agriculture, Industry, Recreation, and Wildlife:** Class 4 waters are waters other than those designated as Class 1 where it has been determined that aquatic life uses are not attainable pursuant to the provisions of Section 33 of these regulations. Uses designated on Class 4 waters include recreation, wildlife, industry, agriculture and scenic value (Wyoming DEQ, Wyoming Surface Water Quality Standards).

**Surface-Disturbing Activities:** An action that alters the vegetation, surface/near surface soil resources, and/or surface geologic features, beyond natural site conditions and on a scale that affects other Public Land values. Examples of surface disturbing activities may include: operation of heavy equipment to construct well pads, roads, pits and reservoirs; installation of pipelines and power lines; and the conduct of several types of vegetation treatments (e.g., prescribed fire, etc.). Surface disturbing activities may be either authorized or prohibited. (Information Bulletin WY-2007-029).

**Suspension:** The temporary withholding from active use, through a decision issued by the authorized officer or by agreement, of part or all of the permitted use in a grazing permit or lease (43 CFR Part 4100). These AUMs could potentially be re-authorized for use if range conditions improve.

**Sustainability:** The ability of an ecosystem to maintain ecological processes and functions, biological diversity, and productivity over time.

**Syncline or Synclinal:** A fold in rocks in which the rock layers dip inward from both sides toward the axis, like a hot dog bun (BLM 2002a).

**Tank:** A reservoir of any construction for water storage.

**Tanning:** The process which turns animal hides into leather.

**Technical/Economically Feasible:** Actions that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. It is the BLM's sole responsibility to determine what actions are technically and economically feasible. The BLM will consider whether implementation of the proposed action is likely given past and current practice and technology; this consideration does not necessarily require a cost-benefit analysis or speculation about an applicant's costs and profit. (Modified from the Council on Environmental Quality's 40 Most Asked Questions and BLM NEPA Handbook, Section 6.6.3)

**Tentative Classification:** The process where rivers are segmented according to the criteria and classes established in Section 2(b) of the Wild and Scenic Rivers Act. These classifications are based on an analysis of the present level of development within the stream corridor at the time the inventory was completed. These classifications also control the level of development that may occur within a stream corridor, once a stream is determined eligible or suitable and a classification is assigned. The classifications are:

- (1) recreational: rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past.
- (2) scenic: rivers or sections of rivers free of impoundments, with shorelines or watersheds still largely undeveloped but accessible in places by roads.

- (3) **wild:** rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.

**Threatened Species:** Any plant or animal species defined under the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range; listings are published in the *Federal Register*.

**Timeliness:** The lack of a time lag between impacts and the achievement of compensatory mitigation goals and objectives (BLM Manual Section 1794).

**Timing Limitations (TLS):** Prohibits surface use during specified time periods to protect identified resource values (BLM 2009).

**Tipi:** A cone-shaped tent used especially by Plains Indians usually made of skins or bark spread over a frame of poles. Also spelled tepee or teepee.

**Torrifluvents:** Entisols formed in stream deposited materials under limited moisture conditions.

**Torriorthents:** Entisols formed under very limited moisture conditions.

**Traditional Cultural Property:** A cultural property eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (A) are rooted in that community's history, and (B) are important in maintaining the continuing cultural identity of the community. "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property is derived from the role the property plays in a community's historically rooted beliefs, customs, and practices.

**Trail:** A linear route managed for human-powered, stock, or off-highway vehicle forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high clearance vehicles.

**Travois:** A device used by Plains Indians to move things. It consisted of two long poles with a platform or netting to carry objects. Originally pulled by dogs, horses were later used to pull it.

**Trend:** The direction of change in ecological status or resource value rating observed over time. Trend in ecological status should be described or toward, or away from the potential natural community, or as not apparent. Trend in resource value rating for a specific use should be described as up, down or not apparent. Trends in resource value rating for several uses on the same site at a given time may be in different directions, and there is no necessary correlation between trends in resource value rating and trend in ecological status.

**Two-track Vehicle Trails:** A two-track is where perennial vegetation is devoid or scarce, or where wheel tracks are continuous depressions in the soil yet evident to the casual observer and are vegetated.

**Undeveloped Recreation-tourism Market:** National, regional, or local recreation-tourism visitors, communities, or other constituents who value public lands for the distinctive kinds of dispersed recreation produced by the vast size and largely open, undeveloped character of their recreation settings. Major investments in facilities are excluded within special recreation management areas where the BLM's strategy is to target demonstrated undeveloped recreation-tourism market demand. Here, recreation management actions are geared toward meeting primary recreation-tourism market demand to sustain distinctive recreation setting characteristics; however, major investments in visitor services are authorized both to sustain those distinctive setting characteristics and to maintain visitor freedom to choose where to go and what to do—all in response to demonstrated demand for undeveloped recreation.

**Unoccupied Lek:** There are two types of unoccupied leks, “destroyed” and “abandoned.” Unoccupied leks are not protected during surface disturbing activities.

**Uplands:** Lands at higher elevations than alluvial plains or low stream terraces; all lands outside the riparian-wetland and aquatic zones.

**Use:** (1) The proportion of current years forage production that is consumed or destroyed by grazing animals. May refer either to a single species or to the vegetation as a whole. (2) Utilization of range for a purpose such as grazing, bedding, shelter, trailing, watering, watershed, recreation, forestry, etc.

**Ustorthents:** Entisols formed under limited moisture conditions.

**Utilization:** The proportion or degree of current year’s forage production that is consumed or destroyed by animals (including insects). It may refer either to a single plant species, a group of species, or to the vegetation as a whole, generally expressed as a percentage.

**Vegetation:** Plants in general, or the sum total of the plant live above and below ground in an area.

**Vegetation Treatments:**

**Mechanical Treatment:** Use of vehicles such as wheeled tractors, crawler type tractors, or specially designed vehicles with attached implements designed to cut, uproot or chop existing vegetation. Includes manual treatments involving hand tools, and hand operated power tools to cut, clear or prune herbaceous and woody species.

**Biological Treatments:** Intentional use of domestic animals, insects, nematodes, mites, or pathogens that weaken or destroy vegetation.

**Chemical Treatments:** Use of chemicals (herbicides), to kill or injure plants.

**Vegetative Diversity:** The variety of vegetative types in an area, including species, the genetic differences among species and populations, the communities and ecosystems in which vegetation types occur, and the structure and seral stage of these communities. Vegetative diversity includes rare as well as common vegetative types, and typically supports a diverse array of animal species and communities.

**Viewshed:** Term used in Visual Resource Management (VRM) to describe “...landscape that can be seen under favorable atmospheric conditions from a viewpoint (key observation point) or along a transportation corridor” (BLM 1984).

**Vision Quest:** A method used by American Indians, and others to seek spiritual power and knowledge through a vision of a guardian spirit or other entity. The process normally involves fasting and praying for extended periods of time.

**Visual Resource Management (VRM) Classes:**

**Class I:** The objective of this class is to maintain a landscape setting that appears unaltered by humans. It is applied to wilderness areas, some natural areas, wild portions of wild and scenic rivers, and other similar situations in which management activities are to be restricted.

**Class II:** The objective of this class is to design proposed alterations so as to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

**Class III:** The objective of this class is to design proposed alterations so as to partially retain the existing character of the landscape. Contrasts to the basic elements (form, line, color, and texture)

caused by a management activity may be evident and begin to attract attention in the characteristic landscape; however, the changes should remain subordinate to the existing characteristic landscape.

**Class IV:** The objective of this class is to provide for management activities that require major modification of the existing character of the landscape. Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, changes should repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape.

**Rehabilitation Area:** Change is needed or change may add acceptable visual variety to an area. This class applies to areas where the naturalistic character has been disturbed to a point at which rehabilitation is needed to bring it back into character with the surrounding landscape. This class would apply to areas identified in the scenic evaluation where the quality class has been reduced because of unacceptable cultural modification. The contrast is inharmonious with the characteristic landscape. It may also be applied to areas that have the potential for enhancement; i.e., add acceptable visual variety to an area or site. It should be considered an interim or short-term classification until one of the other VRM class objectives can be reached through rehabilitation or enhancement. The desired VRM class should be identified.

**Visual Resources:** The visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area.

**Voluntary Non-Use:** When a grazing permittee voluntarily agrees to not use a portion of the allotted AUMs in an allotment.

**Watershed:** See *Basin*.

**Weed:** Any undesirable or troublesome plant, especially one that grows profusely where it is not wanted. Weeds can be native or non-native, invasive or noninvasive, and noxious or not noxious.

**Wetlands:** Areas that are inundated or saturated by surface or groundwater often and long enough to support and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

**Wilderness:** A congressionally designated area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed to preserve its natural conditions and that (1) generally appears to have been affected mainly by the forces of nature, with human imprints substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres or is large enough to make practical its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historic value. The definition contained in Section 2(c) of the Wilderness Act of 1964 (78 Stat. 891) (from H-6310-1, Wilderness Inventory and Study Procedures).

**Wilderness Characteristics:** Wilderness characteristics include size, the appearance of naturalness, outstanding opportunities for solitude, or a primitive and unconfined type of recreation. They may also include ecological, geological, or other features of scientific, educational, scenic, or historical value. However Section 2(c) of the Wilderness Act of 1964 has been updated by IM-2003-195, dated June 20, 2003. Indicators of an area's naturalness include the extent of landscape modifications, the presence of native vegetation communities, and the connectivity of habitats. Outstanding opportunities for solitude or primitive and unconfined types of recreation may be experienced when the sights, sounds, and evidence of other people are rare or infrequent, in locations where visitors can be isolated, alone or secluded from

others, where the use of the area is through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered.

**Wilderness Study Area:** A roadless area or island that has been inventoried and found to have wilderness characteristics as described in Section 603 of FLPMA and Section 2 (c) of the Wilderness Act of 1964 (78 Stat. 891).

**Wildland Fire:** A general term describing any non-structure fire that occurs in the vegetation and/or natural fuels.

**Wildfire:** Unplanned ignition caused by lightning, volcanoes, unauthorized and accidental human-caused fires and escaped prescribed fires.

**Prescribed Fire:** Any fire intentionally ignited by managed under an approved plan to meet specific objectives.

**Wildland Industrial Interface:** The area where industrial development meets or intermingles with undeveloped wildland.

**Wildland Urban Interface (WUI):** Healthy Forest Recreation Act 2003: defines wildland urban interface (WUI) (section 101) as an area within or adjacent to an at risk community that has been identified by a community in its wildfire protection plan or, for areas that do not have such a plan, an area extending; (1) ½ mile from the boundary of an at risk community, or (2) 1½ miles when other criteria are met. (e.g., a sustained steep slope or a geographic feature aiding in creating an effective fire break or is condition class III land, or (3) is adjacent to an evacuation route.

**Wildlife Habitat Management Area (WHMA):** Special management areas that are designed to protect or preserve certain qualities or uses for wildlife and plant species. The environment in these areas is unique in some respects, and it is therefore desirable to apply different management prescriptions to these areas from those of the surrounding public lands. The integration of different land management goals, objectives, and actions will be implemented to ensure that the integrity of these areas will be maintained. They will be directed toward habitat management rather than species management and encompass featured species and species diversity to ensure compliance with existing laws; prevent species from becoming threatened or endangered; and provide values and uses for the public. The BLM will implement site-specific management actions in coordination with other agencies to maintain and/or improve these unique wildlife habitat management areas (BLM 2008e).

**Wildlife Security Area:** A geographic location or area that typically provides for some, if not all, of the wildlife species cover and forage needs and where wildlife are free from human caused disturbance and/or disruption.

**Wildlife-Disturbing Activity:** BLM-authorized activities other than routine maintenance that may cause displacement of or excessive stress to wildlife during critical life stages. Wildlife-disturbing activities include human presence, noise, and activities using motorized vehicles or equipment.

**Withdrawal:** Removal or withholding of public lands, by statute or Secretarial order, from operation of some or all of the public land laws. A mineral withdrawal includes public lands potentially valuable for leasable minerals, precluding the disposal of the lands except with a mineral reservation clause, unless the lands are found not to contain a valuable deposit of minerals. A mineral withdrawal is the closing of an area to mineral location and development activities.

**Woodlands:** Not capable of producing 20 cubic feet of wood fiber from commercial species per acre per year.

**Yearlong Grazing:** Continuous grazing for a calendar year. In the Cody Field Office, the year is defined at starting on March 1 and ending on February 28.

**Yellowcake:** Yellowcake is the product of the uranium extraction (milling) process. Early production methods resulted in a bright yellow compound, hence the name yellowcake. The material is a mixture of uranium oxides that can vary in proportion and color from yellow to orange to dark green (blackish), depending at which temperature the material was dried (level of hydration and impurities). Higher drying temperatures produce a darker, less soluble material. Yellowcake is commonly referred to as  $U_3O_8$  and is assayed as pounds  $U_3O_8$  equivalent. This fine powder is packaged in drums and sent to a conversion plant that produces uranium hexafluoride as the next step in the manufacture of nuclear fuel.

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